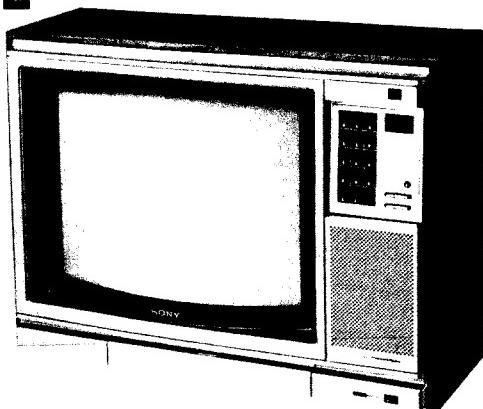


# KV-1746R / 1946R

RM-703

## SERVICE MANUAL

*US Model*



(KV-1746R)

March, 1981

*Chassis No.*

KV-1746R : SCC-341A-A

KV-1946R : SCC-342A-A

$\alpha_1$  CHASSIS

### SPECIFICATIONS

<b>Television System:</b>	American TV standards	<b>Power Requirements:</b>	120 V ac, 60 Hz
<b>Color System:</b>	NTSC	<b>Power Consumption:</b>	110 W (max) 73 W (average) 2.5 W (in standby condition)
<b>Picture Tube:</b>	Trinitron tube	KV-1746R	120 W (max) 78 W (average) 2.5 W (in standby condition)
KV-1746R	43.7 cm, 17" (screen measured diagonally), 90° deflection	KV-1946R	
KV-1946R	48.7 cm, 19" (screen measured diagonally), 100° deflection	<b>Dimensions:</b>	approx. 623 (w) x 456 (h) x 472 (d) mm (24 1/2 (w) x 18 (h) x 18 5/8 (d) inches)
<b>Antennas:</b>	VHF: 75 Ω unbalanced (telescopic dipole antenna*) UHF: 300 Ω balanced (loop antenna*)	KV-1746R	approx. 673 (w) x 488 (h) x 482 (d) mm (26 1/2 (w) x 19 1/4 (h) x 19 (d) inches)
* Note: Supplied with accessories		KV-1946R	
<b>Channel Coverage:</b>	VHF channels: 2-13 UHF channels: 14-83 (a total of up to 14 preselected channels)	<b>Weight:</b>	approx. 24.2 kg (53 lbs 6 oz) approx. 28.8 kg (63 lbs 8 oz)
<b>Intermediate Frequencies:</b>	Picture i-f carrier: 45.75 MHz Color subcarrier: 42.17 MHz Sound i-f carrier: 41.25 MHz	<b>Accessories Supplied:</b>	Earphone, Magnetic (ME-20B) VHF dipole antenna (AN-16) UHF loop antenna (AN-15) Remote commander (RM-703) Channel number segments Tuning aid Instruction manual
<b>Sound System:</b>	4.5 MHz intercarrier Output power: 1.5 W (at 10 % harmonic distortion) Speaker: 10 cm (4 inches) dia, 8 Ω		
<b>Video System:</b>	R, G, B cathode drive		
<b>Automatic Controls:</b>	ABL (automatic brightness limiter) ACC (automatic color control) ACK (automatic color killer) ADG (automatic degaussing) AFC (automatic frequency control) AFT (automatic fine tuning) AGC (automatic gain control) ANC (automatic noise canceller) APC (automatic phase control) AVR (automatic voltage regulator)		
<b>Anode Voltage:</b>	25 kV at zero beam current		

**TRINITRON® COLOR TV**  
**SONY®**



**CTV**

**WARNING !!**

AN ISOLATION TRANSFORMER SHOULD BE USED  
DURING ANY SERVICE TO AVOID POSSIBLE SHOCK  
HAZARD, BECAUSE OF LIVE CHASSIS.  
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CON-  
NECTED TO THE AC POWER LINE.

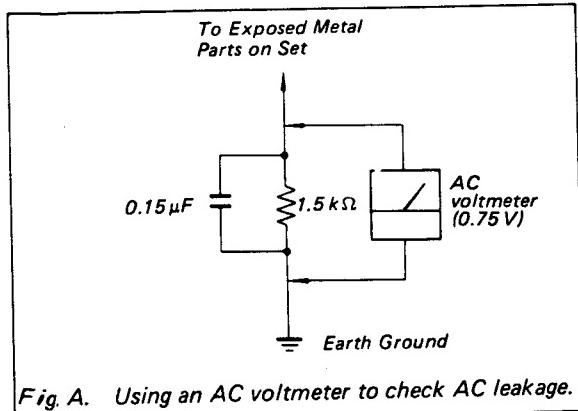
**SAFETY-RELATED COMPONENT WARNING !!**

COMPONENTS IDENTIFIED BY SHADING AND MARK  
 ON THE SCHEMATIC DIAGRAMS, EXPLODED  
VIEWS AND IN THE PARTS LIST ARE CRITICAL TO  
SAFE OPERATION. REPLACE THESE COMPONENTS  
WITH SONY PARTS WHOSE PART NUMBERS APPEAR  
AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS  
PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS  
THAT ARE CRITICAL TO SAFE OPERATION ARE  
IDENTIFIED IN THIS MANUAL. FOLLOW THESE PRO-  
CEDURES WHENEVER CRITICAL COMPONENTS ARE  
REPLACED OR IMPROPER OPERATION IS SUSPECTED.

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.



*Fig. A. Using an AC voltmeter to check AC leakage.*

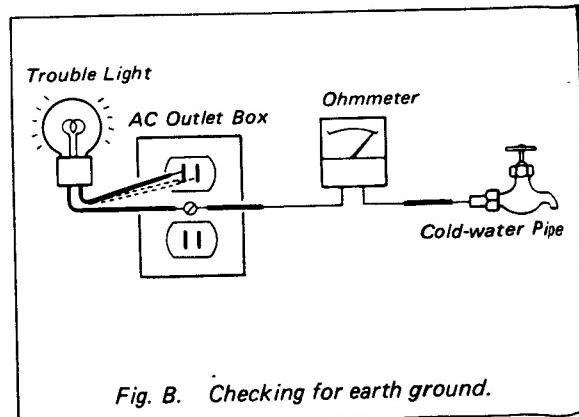
### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

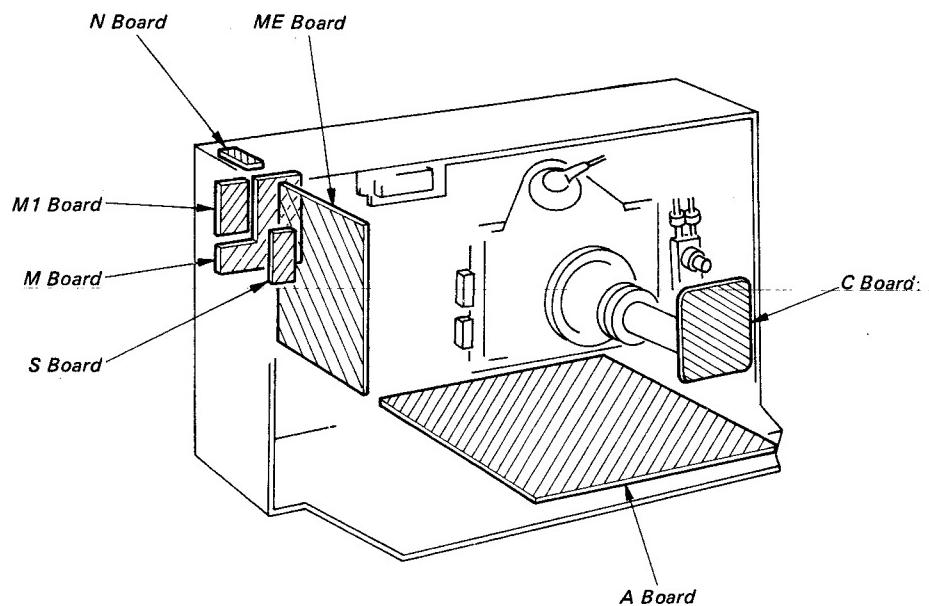
### HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)



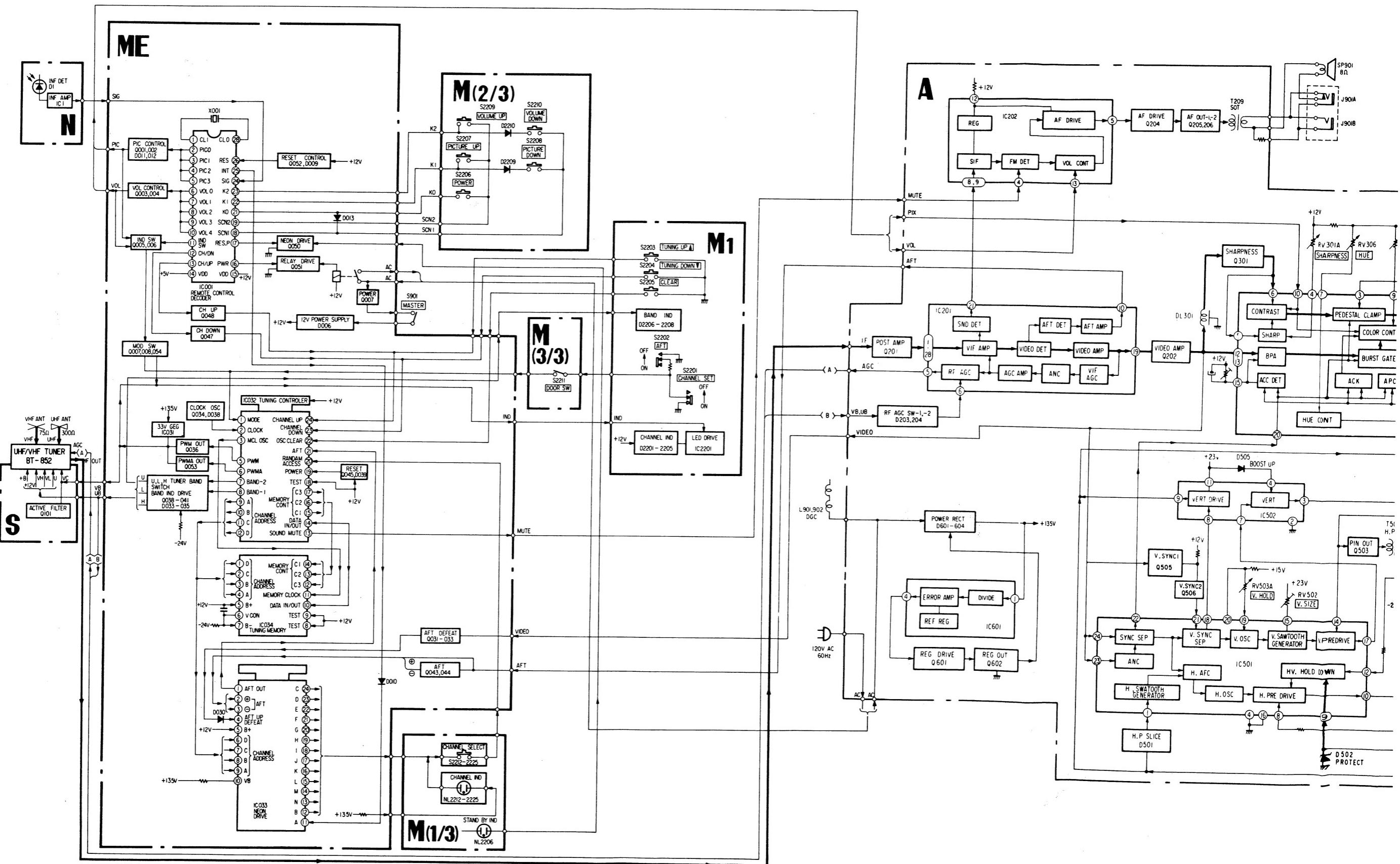
*Fig. B. Checking for earth ground.*

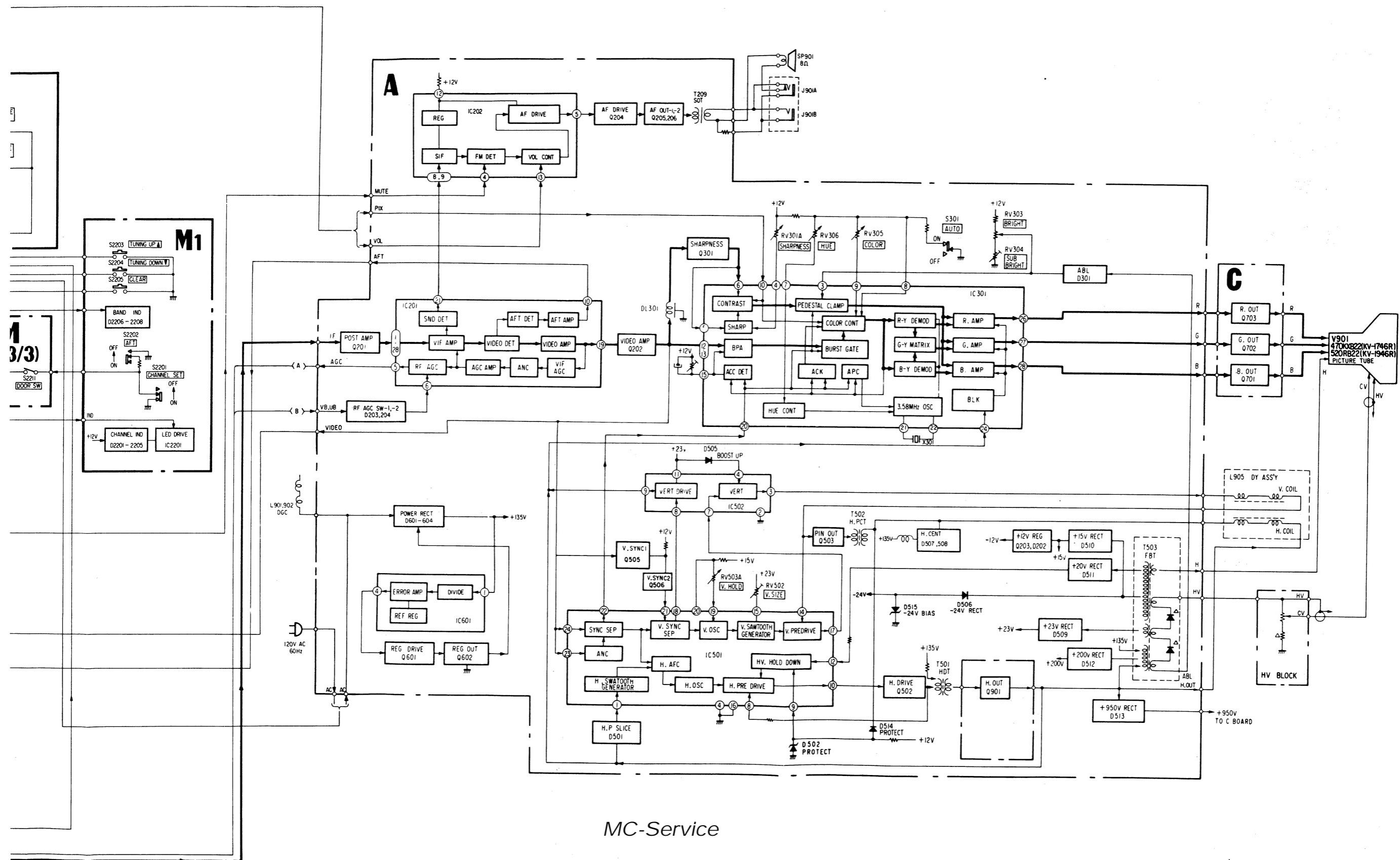
CIRCUIT BOARDS LOCATION



## SECTION 1 OUTLINE

### 1-1. BLOCK DIAGRAM

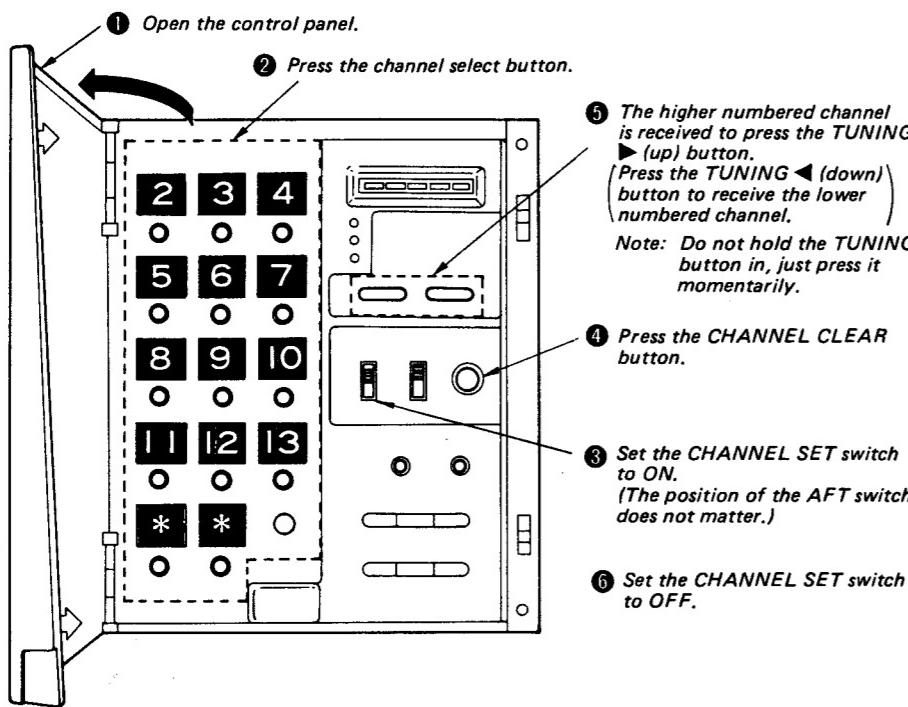




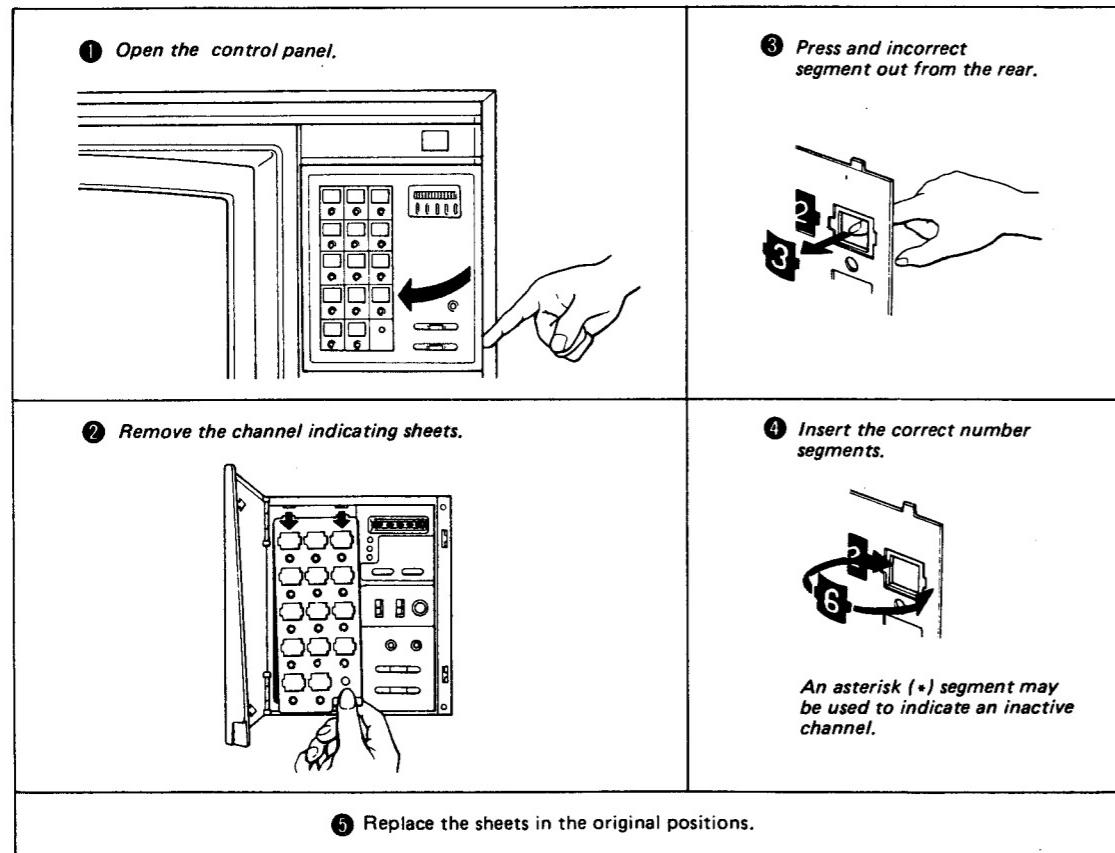
MC-Service

## SECTION 2 DISASSEMBLY

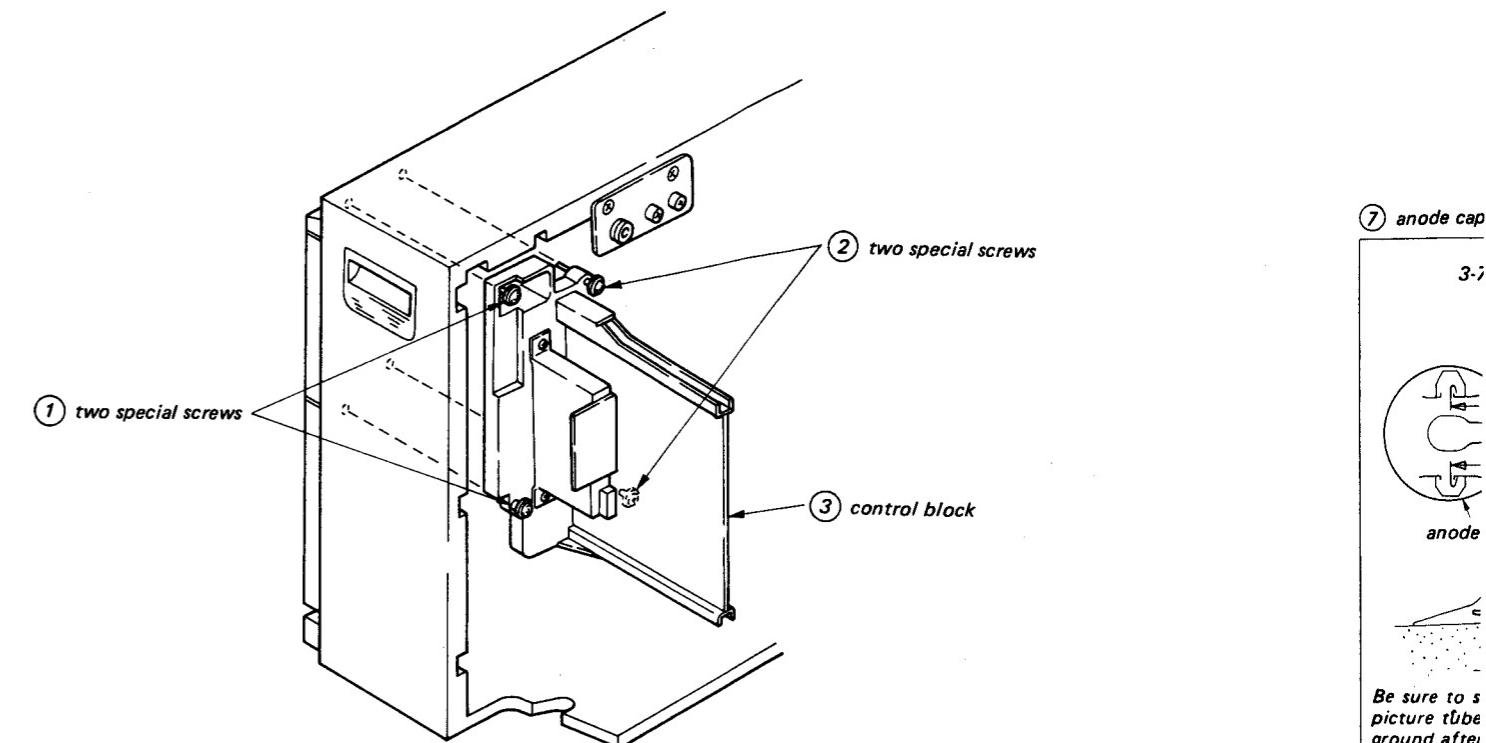
### 1-2. CHANNEL PRESETTING



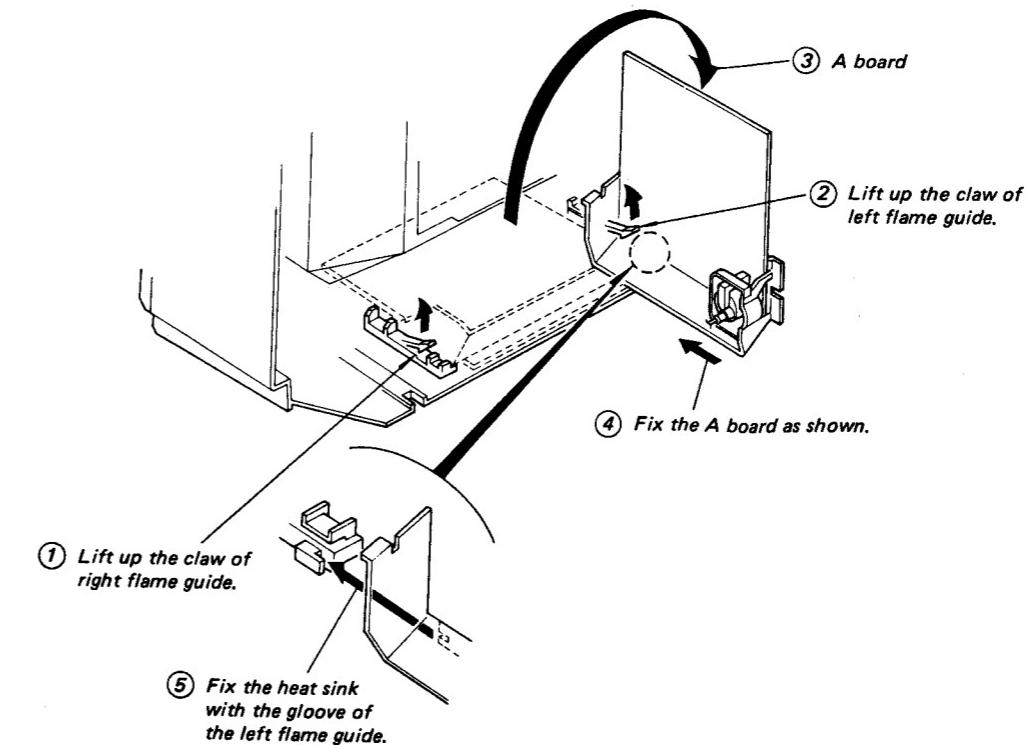
### 1-3. TO REPLACE THE NUMBER SEGMENTS



### 2-1. CHANNEL SELECT BLOCK REMOVAL

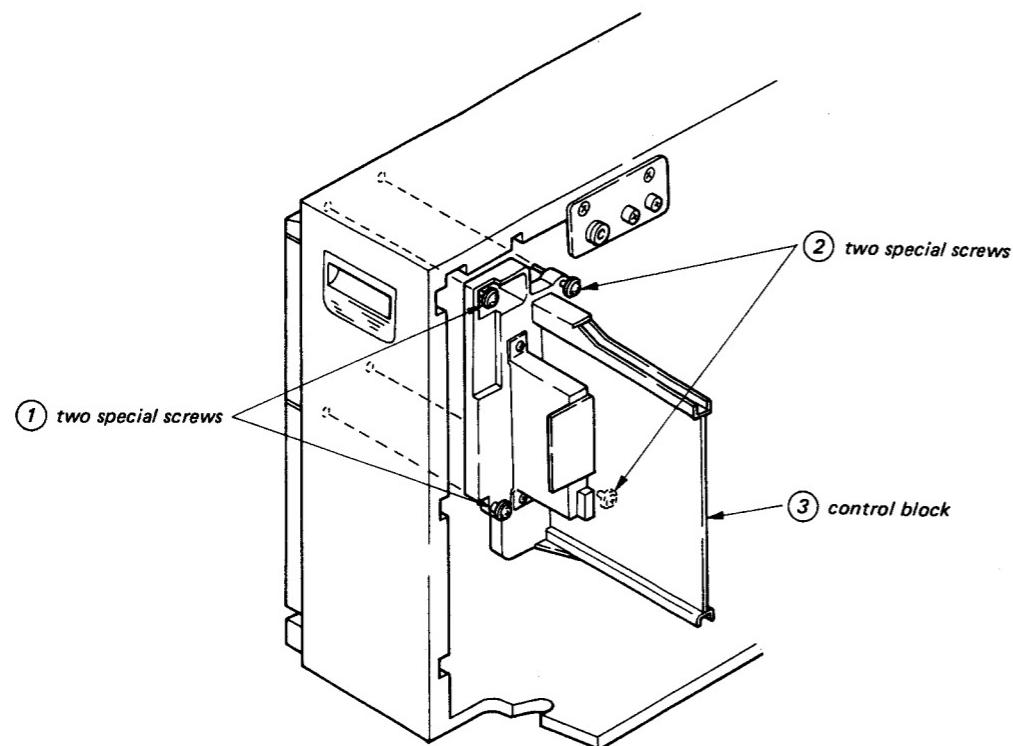


### 2-2. A BOARD REMOVAL (FOR CHECKING IT UP)

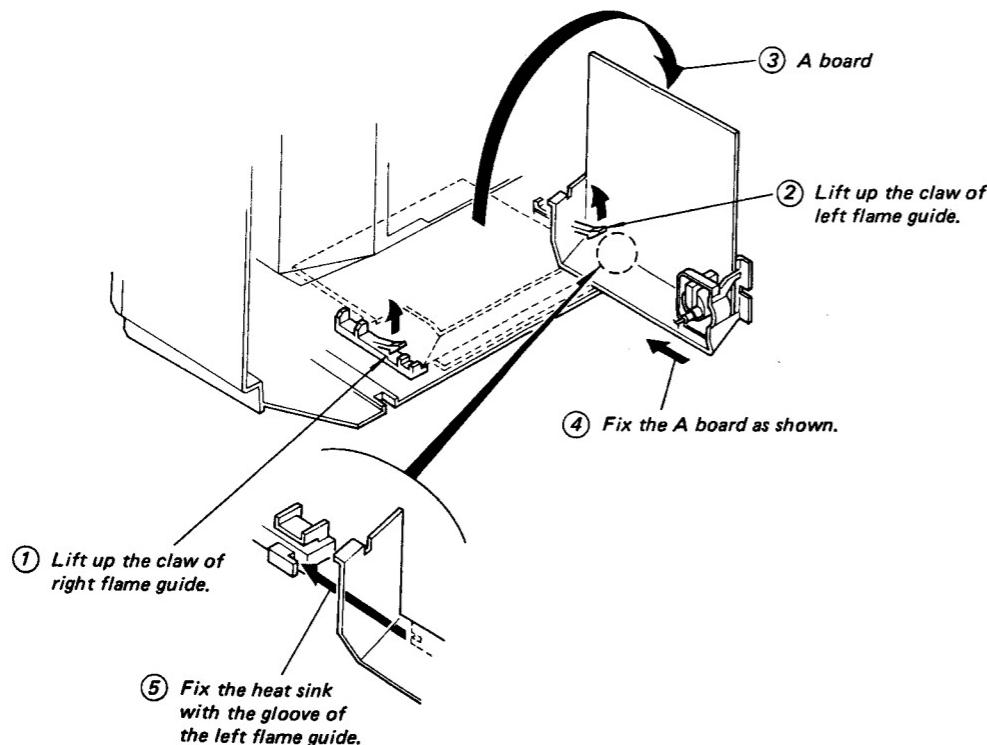


## SECTION 2 DISASSEMBLY

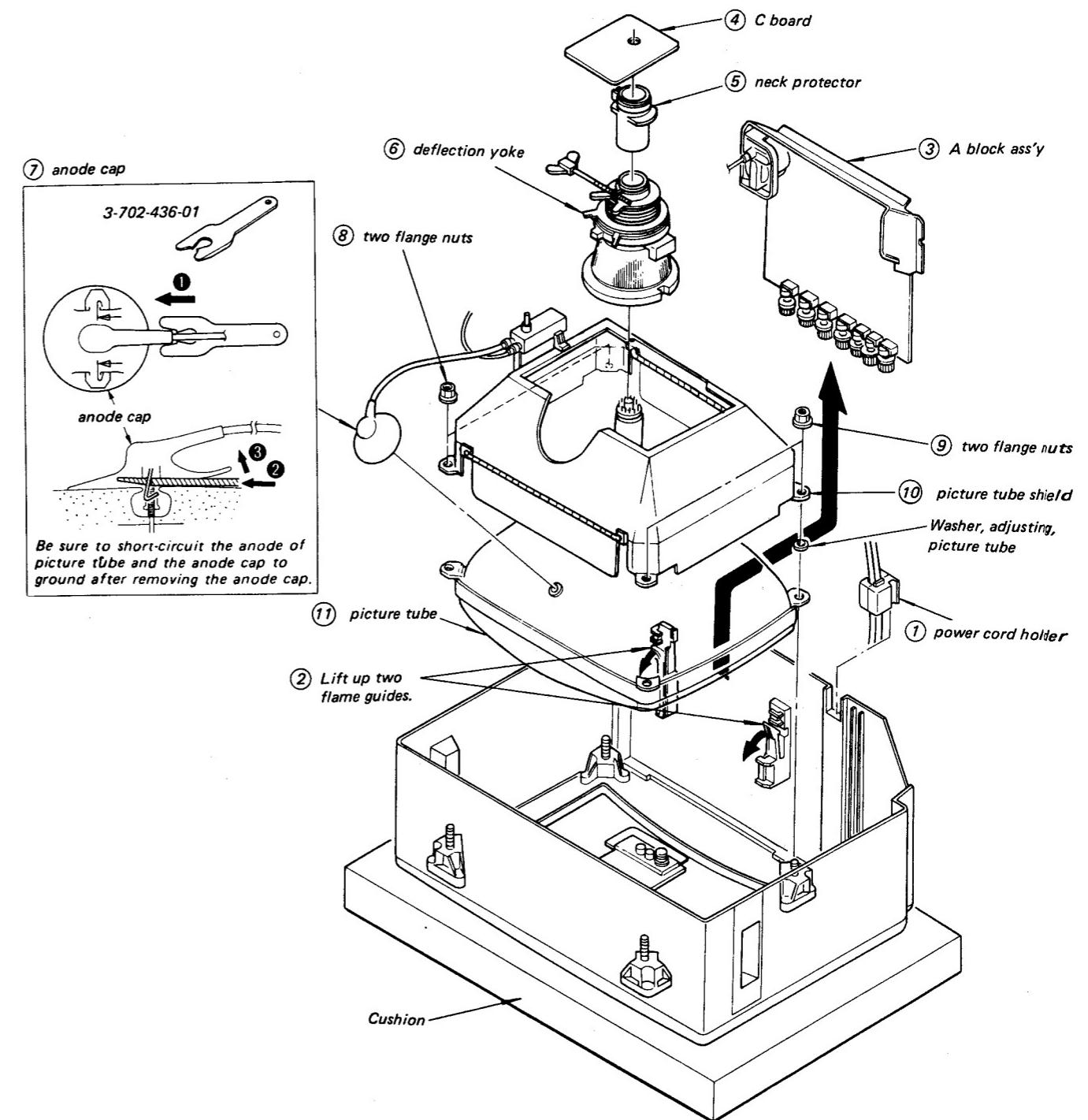
### 2-1. CHANNEL SELECT BLOCK REMOVAL



### 2-2. A BOARD REMOVAL (FOR CHECKING IT UP)

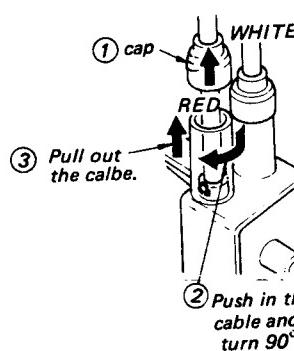


### 2-3. PICTURE TUBE REMOVAL

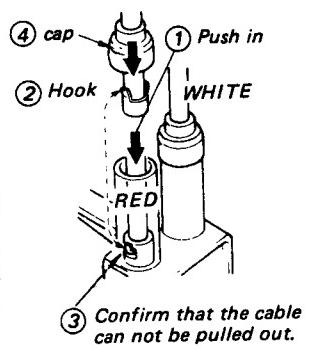


## 2-4. FBT CABLE (HVR BLOCK) REMOVAL AND INSTALLATION

### 1. REMOVAL



### 2. INSTALLATION



## SECTION 3 SETUP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:

PICTURE control . . . . maximum

BRIGHT control . . . . maximum  
(fully clockwise)

Perform the adjustments in order as follows:

- Beam Landing
- Convergence
- White Balance

**Note:** Test Equipment Required.

- Color-bar/Pattern Generator
- Degausser

### 3-1. BEAM LANDING

#### Preparation:

- Feed in the white pattern.
  - Before starting, degauss the entire screen.
- Loosen deflection yoke screw.
  - Adjust purity control as shown in Fig. 3-1.
  - Slide deflection yoke as far forward as it will go.
  - Position neck protector ass'y as shown in Fig. 3-2.
  - Disconnect leads **B** and **G** on the C board.
  - Adjust purity control to center vertical red band as shown in Fig. 3-3.
  - Slide deflection yoke back for a uniform red screen.
  - Check green and blue rasters for uniformity by performing the same way as steps 5, 6 and 7.

To get a uniform green screen,  
connect lead **G** on the C board and  
disconnect leads **R** and **B**.

To get a uniform blue screen,  
connect lead **B** on the C board and  
disconnect leads **R** and **G**.

After these checks, connect the leads **R**, **G** and **B**.

- Tighten the deflection yoke screw.
- Check if mislanding appears at corners **a-d** as shown in Fig. 3-4. If mislanding is observed, correct it as shown in Fig. 3-4.
- Confirm that beam landing is correct when the receiver is faced in all directions.

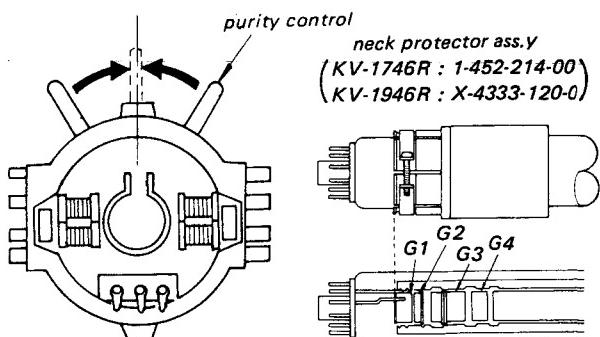
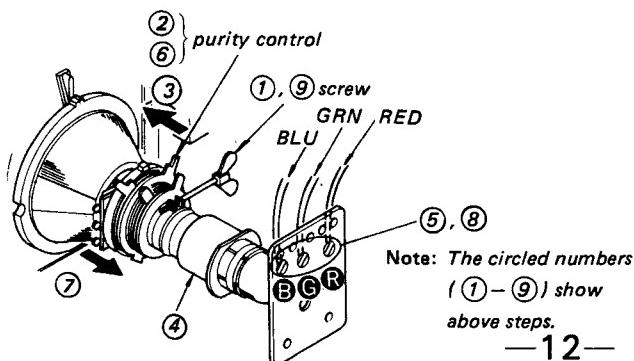


Fig. 3-1.

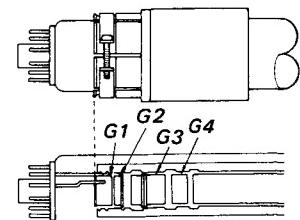


Fig. 3-2.

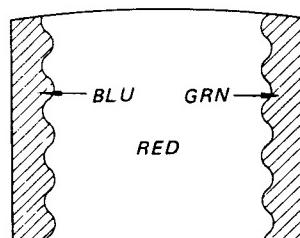


Fig. 3-3.

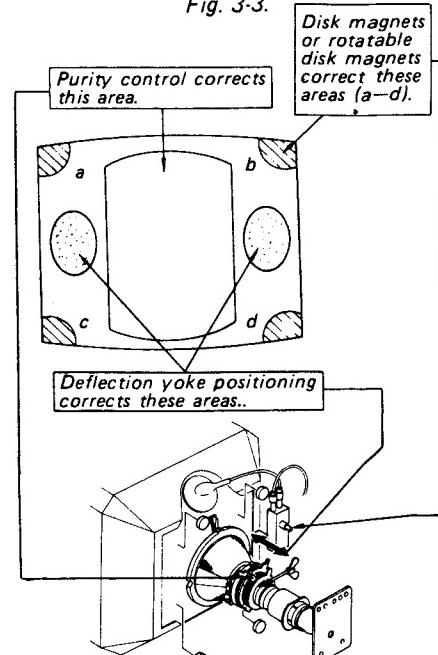


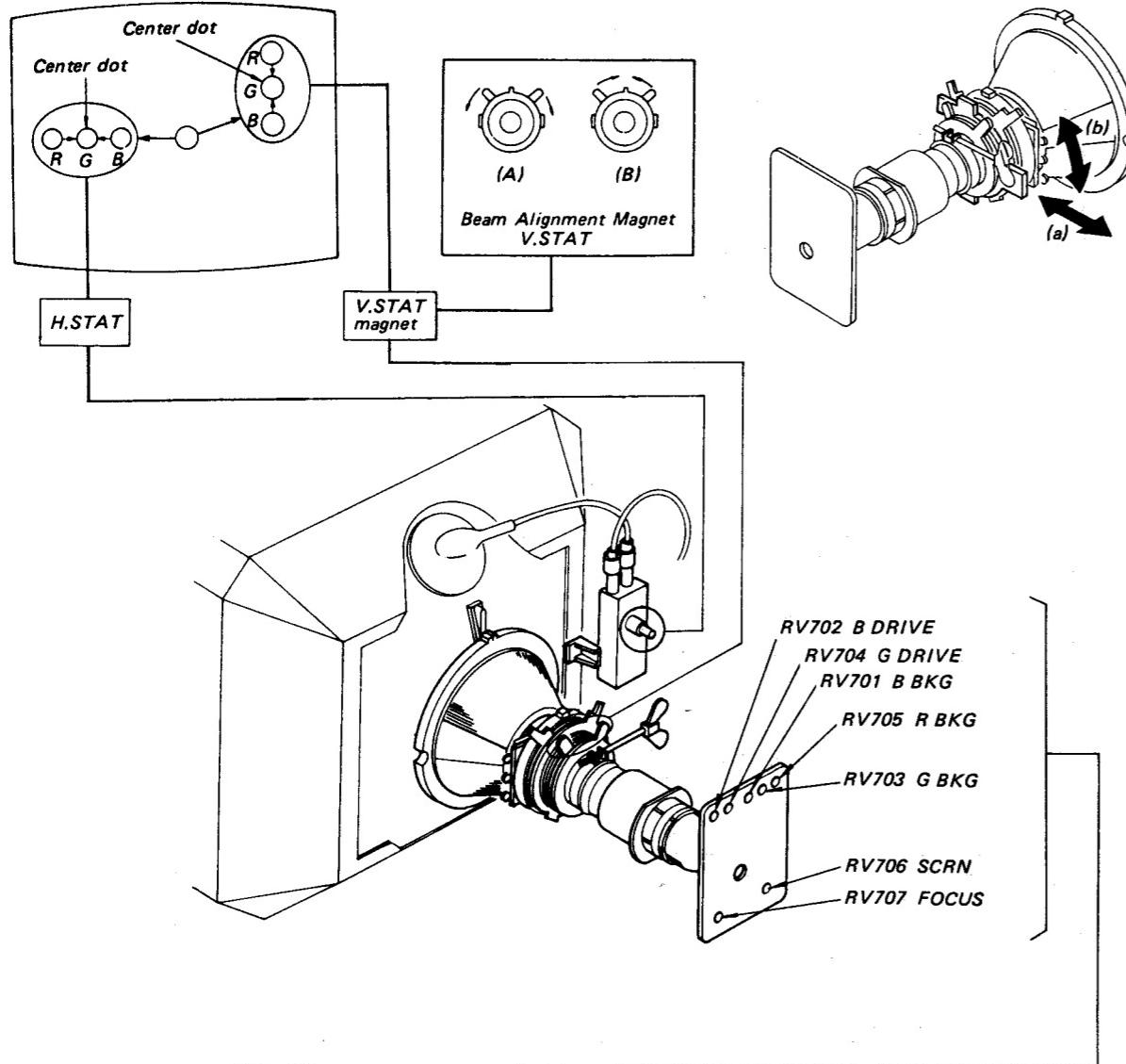
Fig. 3-4.

### 3-2. CONVERGENCE

#### Preparation:

- Before starting, perform FOCUS, H. SIZE and V. SIZE adjustments.
- Set BRIGHT control to fully counterclockwise.
- Feed in the dot pattern.

#### (1) Horizontal and Vertical Static Convergence



If blue dot does not coincide with red and green dots, perform following steps.

Move BMC magnet (a) to correct insufficient H. static convergence.

Rotate BMC magnet (b) to correct insufficient V. static convergence.

In either case, repeat Beam Landing Adjustment.

### (2) Dynamic Convergence Adjustment

#### Preparation:

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

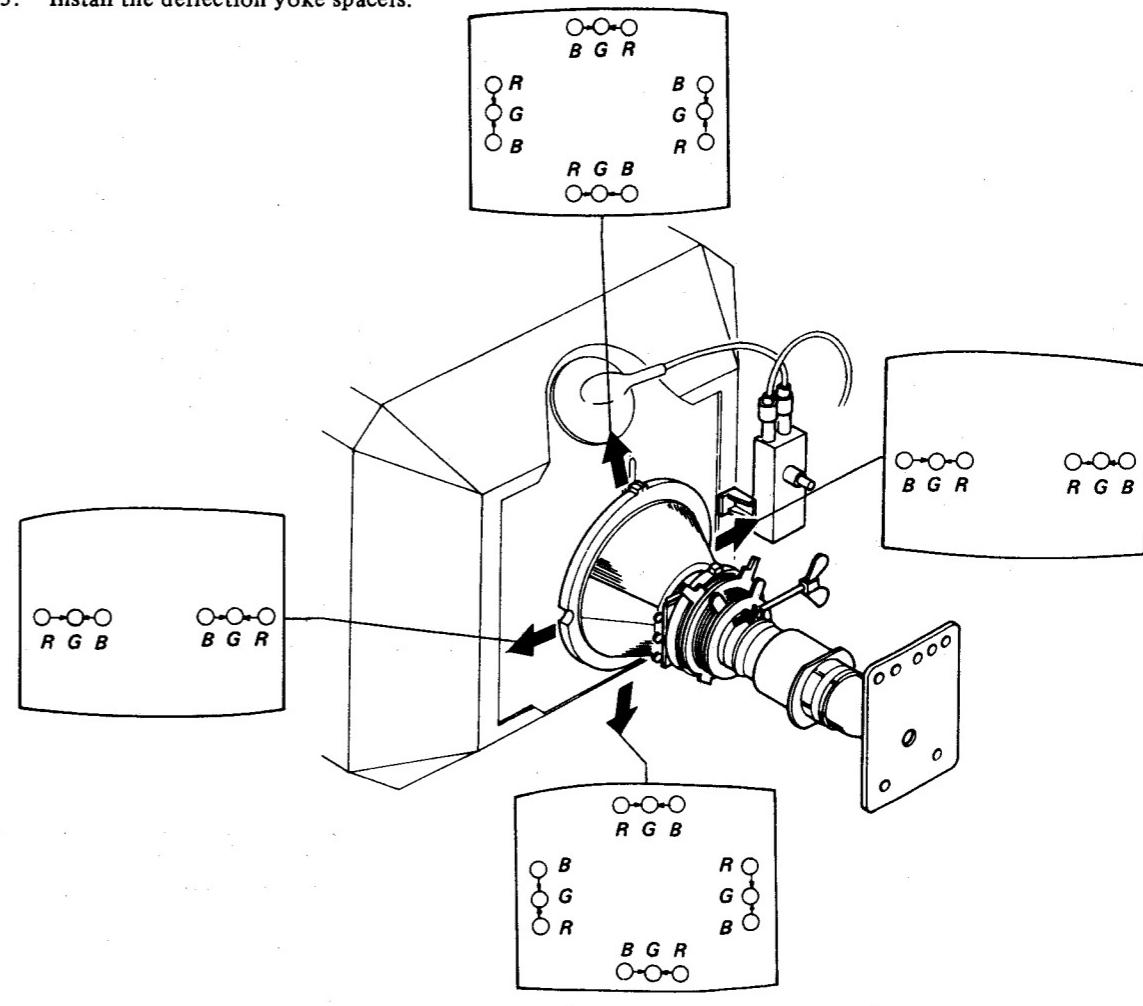
1. Loosen deflection yoke screw.

2. Remove deflection yoke spacers.

3. Move the deflection yoke for best convergence as shown below.

4. Tighten the deflection yoke screw.

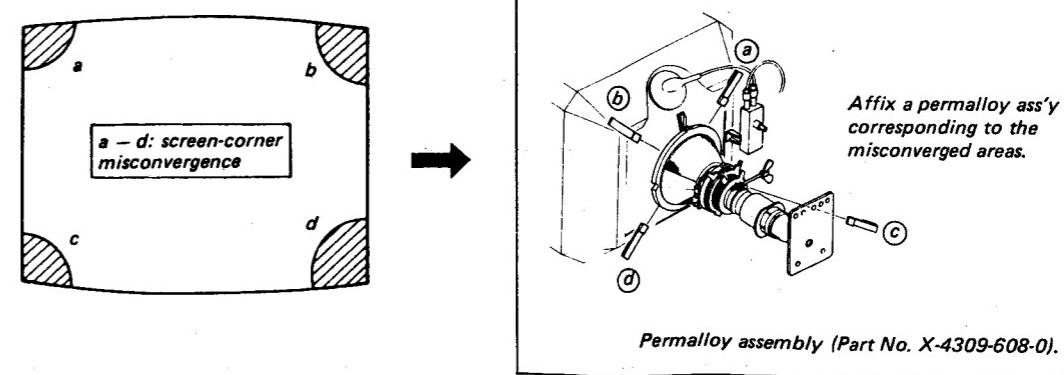
5. Install the deflection yoke spacers.



### 3-3. WHITE BALANCE

Feed in the cross-hatch pattern.

1. Set the PICTURE control to minimum and turn the BRIGHT control fully counterclockwise.
2. Turn RV702 (B. DRIVE) and RV704 (G. DRIVE) fully clockwise.
3. Set RV701 (B. BKG), RV703 (G. BKG), and RV705 (R. BKG) to mechanical center.
4. Turn RV706 (SCRN) slowly to obtain a faintly visible cross-hatch. Note the color that first becomes visible by turning RV706. Do not turn a BKG control for this color.
5. Adjust the other two BKG controls for best white balance (neutral gray) of the faint crosshatch.
6. Set the PICTURE control to maximum and turn the BRIGHT control fully clockwise. Observe the screen and adjust the DRIVE controls for best white balance.
7. Repeat Steps 1 through 6 several times.

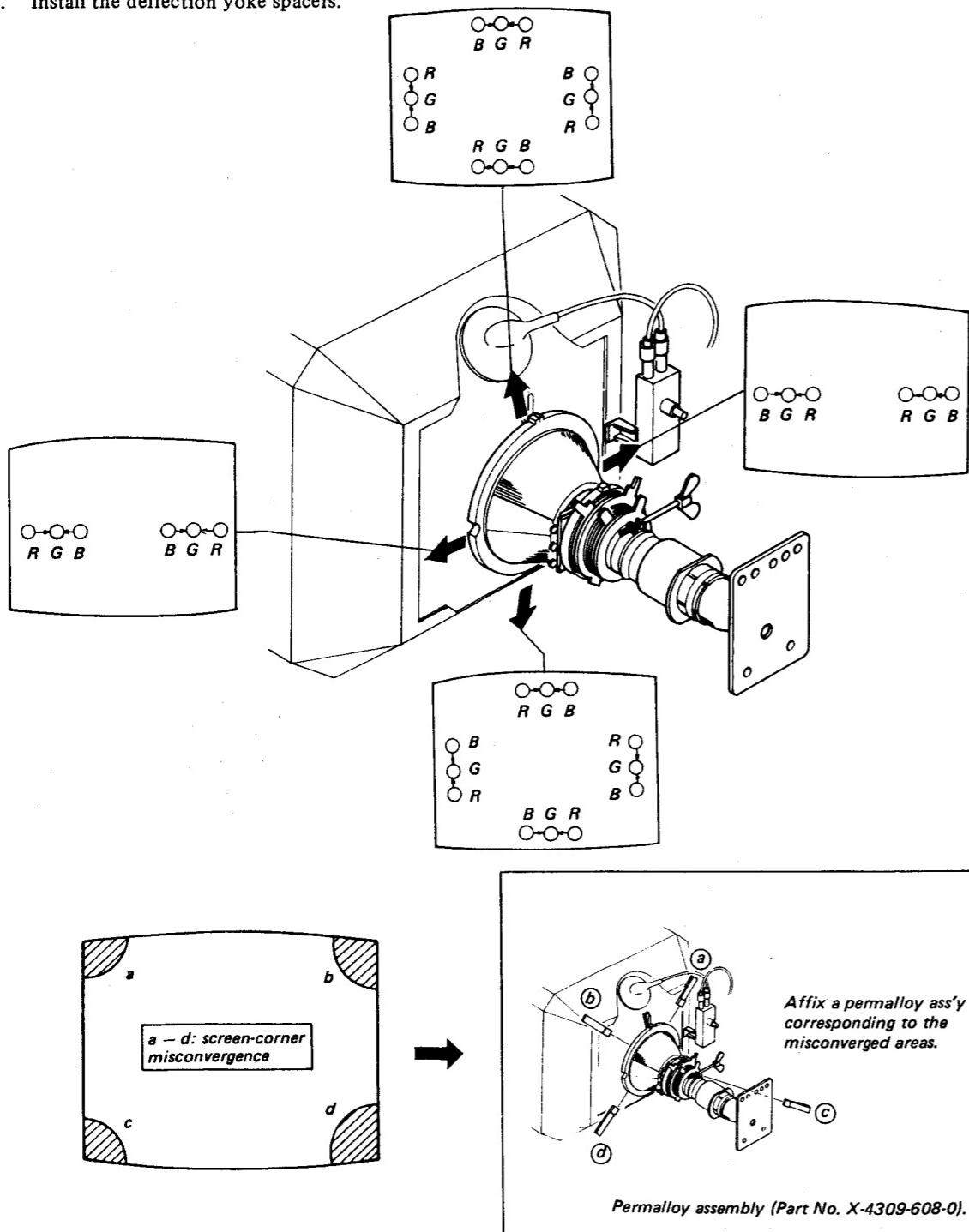


## SECTION 4 CIRCUIT ADJUSTMENTS

### (2) Dynamic Convergence Adjustment

#### Preparation:

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
- 1. Loosen deflection yoke screw.
- 2. Remove deflection yoke spacers.
- 3. Move the deflection yoke for best convergence as shown below.
- 4. Tighten the deflection yoke screw.
- 5. Install the deflection yoke spacers.



#### Note: (1) TEST EQUIPMENT REQUIRED

1. Oscilloscope
2. Digital multimeter
3. Color-bar/pattern generator
4. Variable auto-transformer
5. Isolation transformer
6. Regulated-dc power supply

#### (2) INPUT SIGNAL

When making these adjustments, Supply a color-bar or an off-air signal.

#### (3) CONTROL SETTINGS

Controls and switches should be set as follows when, making checks and adjustments unless otherwise noted.

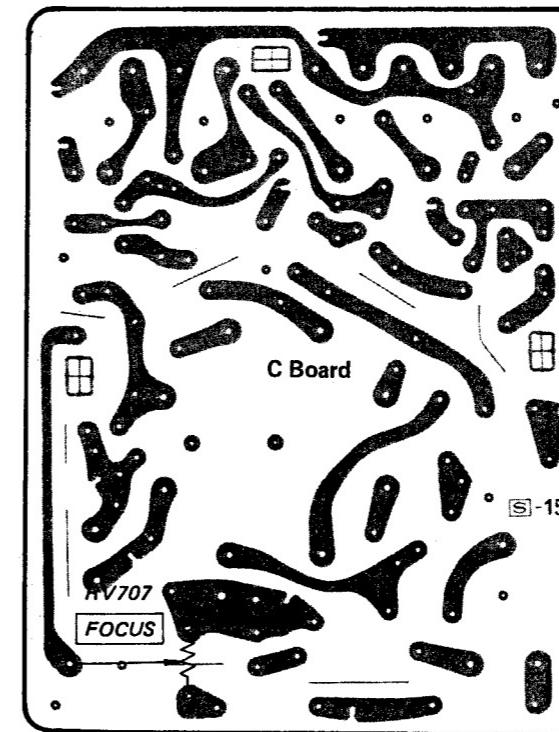
PICTURE control  
BRIGHTNESS control } Set for best picture  
COLOR control  
V. HOLD control ..... Set for stable picture

(4) These adjustments should be performed with the rated power supply voltage unless otherwise noted.

#### 4-1. C BOARD ADJUSTMENT

**FOCUS** Adjust RV707 for best focus.

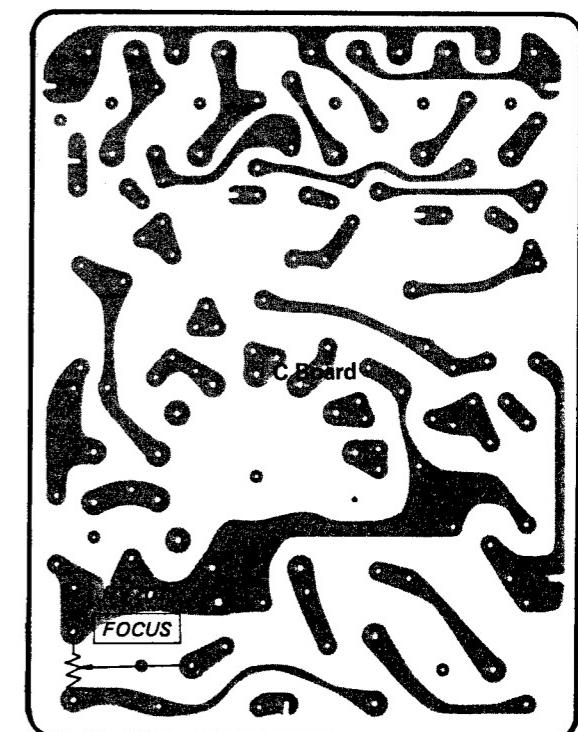
KV-1746R



#### (5) CIRCUIT ADJUSTMENTS

Adjustment	Circuit Board	Page
FOCUS	C	15
R563 adjustment		
COLOR SYNC		
H. FREQ		
PIN AMP		
SUB CONTRAST		16,
ACC		17,
SIF		18
SUB BRIGHT		
RF AGC		
CHECK AFTER IC601 REPLACED		

KV-1946R

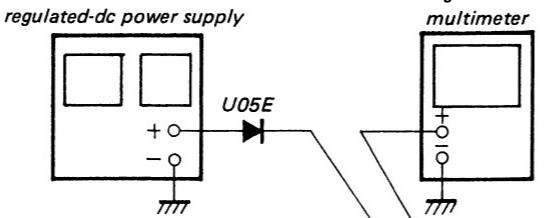


## 4-2. A BOARD ADJUSTMENTS

### R563 ADJUSTMENT (KV-1746R)

When replacing the following components, make this adjustment.  
D502, C505, C520, C554, IC501, R508, R515, R528, R529, R563, R554

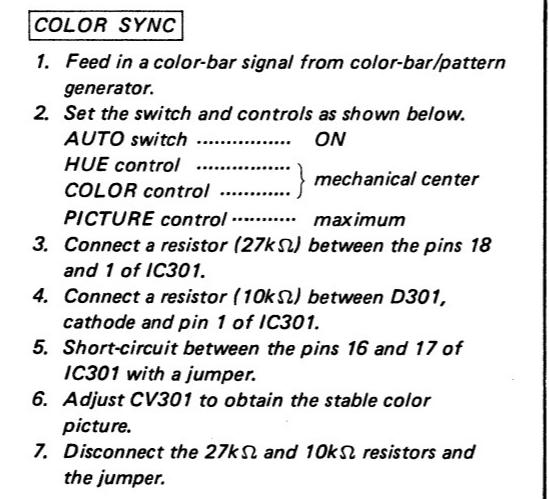
- Supply the  $18.5V \pm 0.05V$  dc to TP85 with the regulated-dc power supply and confirm that the HV hold down circuit operates.  
(When the HV hold down circuit operates, raster disappears.)
- Note: As soon as the HV hold down circuit operates, turn the POWER switch OFF.
- Supply the  $17.9V \pm 0.05V$  dc to TP85 with the regulated-dc power supply and confirm that the set is normally operated on any of all channels.  
(The HV hold down circuit does not operate.)
- When the set is normally operated with 120V ac, confirm that the voltage at TP85 is 15.5V dc to 17.5V dc.
- If steps 1 to 3 are not satisfied, select the resistance value of R563 and repeat above steps.



### R563 ADJUSTMENT (KV-1946R)

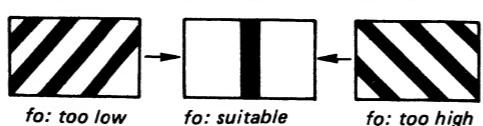
When replacing the following components, make this adjustment.  
D502, C505, IC501, R508, R528, R529, R563

- Supply the  $19.5V \pm 0.1V$  dc to TP85 with the regulated-dc power supply and confirm that the HV hold down circuit operates.  
(When the HV hold down circuit operates, raster disappears.)
- Note: As soon as the HV hold down circuit operates, turn the POWER switch OFF.
- Supply the  $18.3V \pm 0.1V$  dc to TP85 with the regulated-dc power supply and confirm that the set is normally operated on any of all channels.  
(The HV hold down circuit does not operate.)
- When the set is normally operated with 120V ac, confirm that the voltage at TP85 is 15.7V dc to 18.0V dc.
- If steps 1 to 3 are not satisfied, select the resistance value of R563 and repeat above steps.

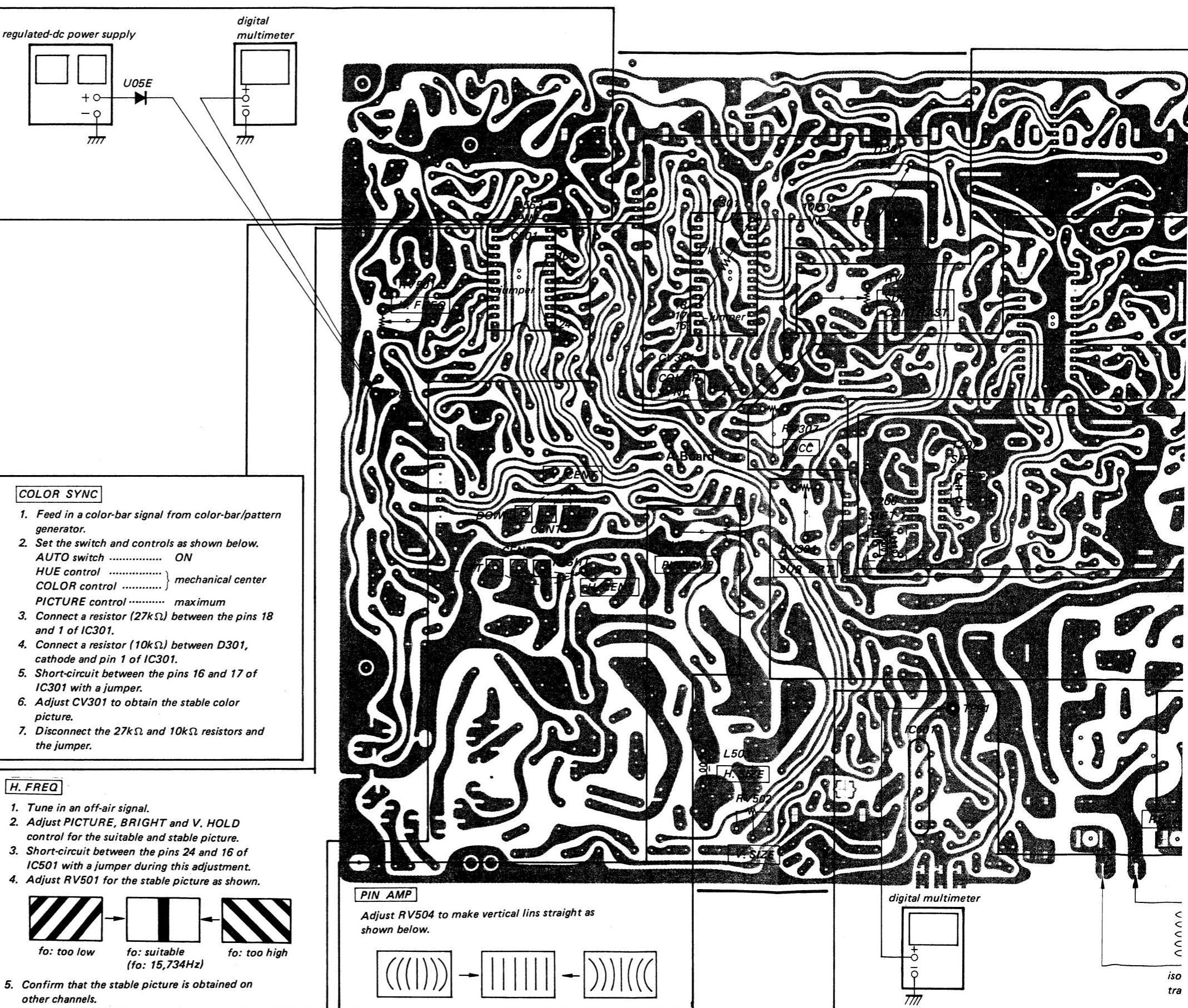


### H. FREQ

- Tune in an off-air signal.
- Adjust PICTURE, BRIGHT and V. HOLD control for the suitable and stable picture.
- Short-circuit between the pins 24 and 16 of IC501 with a jumper during this adjustment.
- Adjust RV501 for the stable picture as shown.

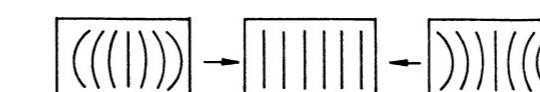


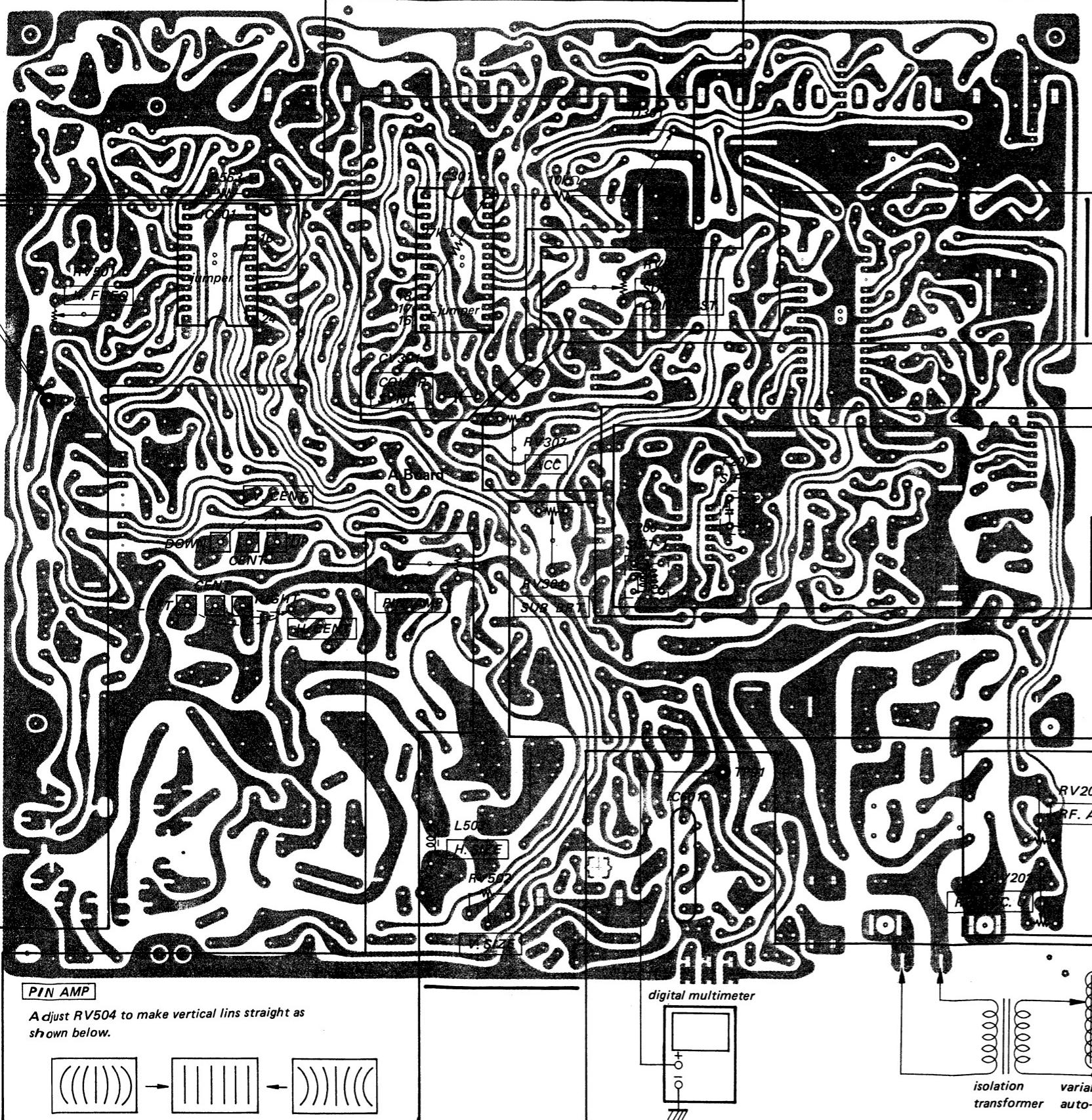
- Confirm that the stable picture is obtained on other channels.



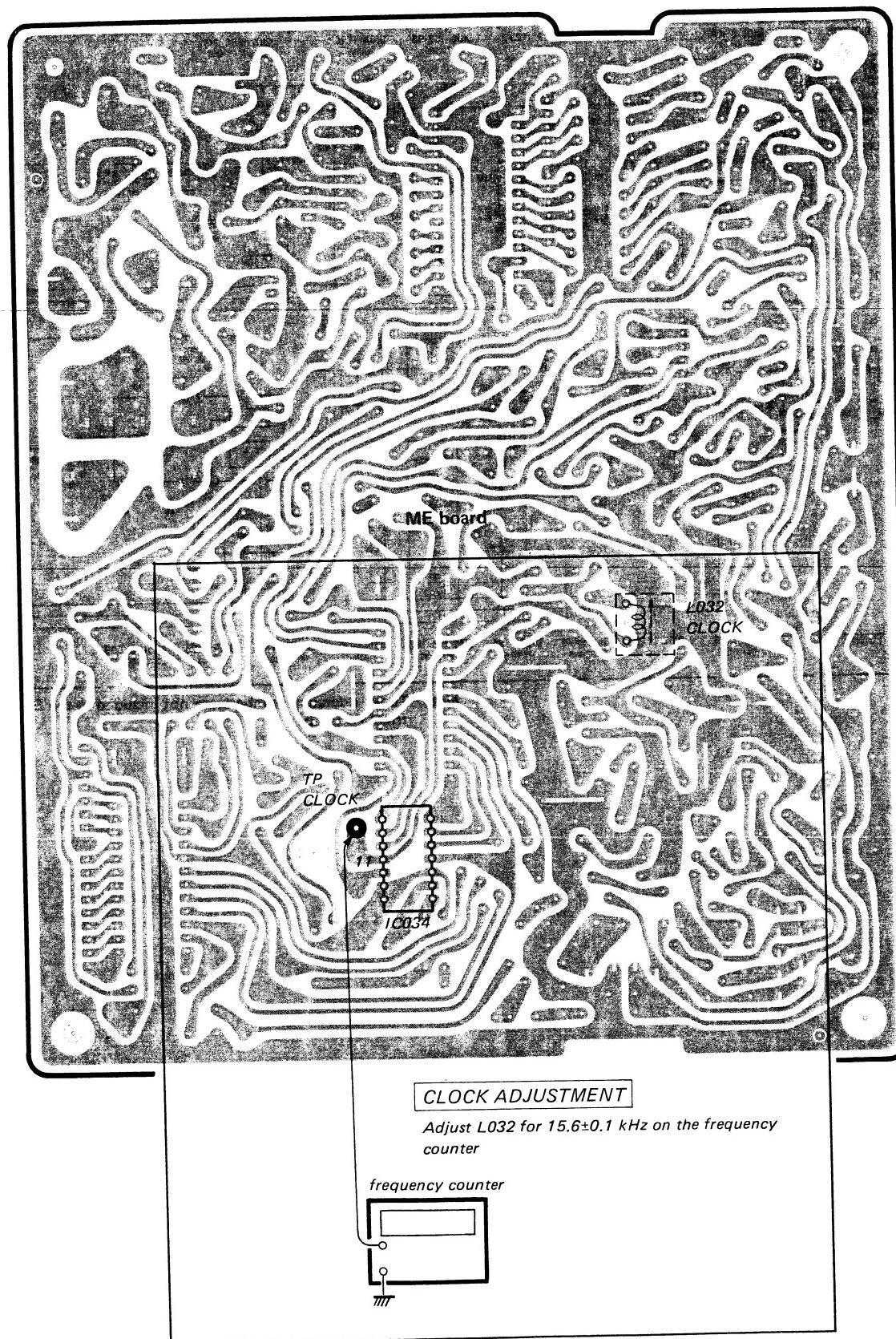
### PIN AMP

Adjust RV504 to make vertical lines straight as shown below.





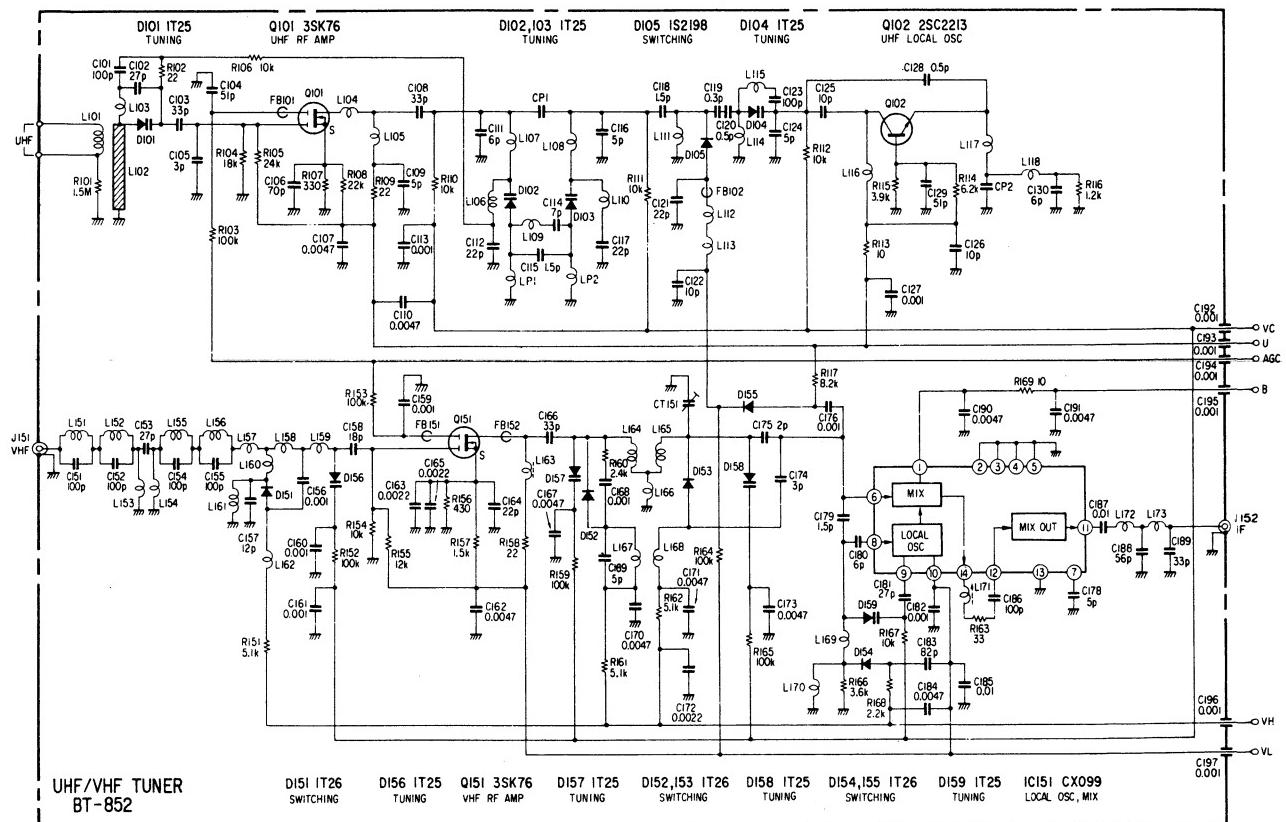
#### 4-3. ME BOARD ADJUSTMENT



## SECTION 5 DIAGRAMS

### 5-1. UHF/VHF TUNER SCHEMATIC DIAGRAM

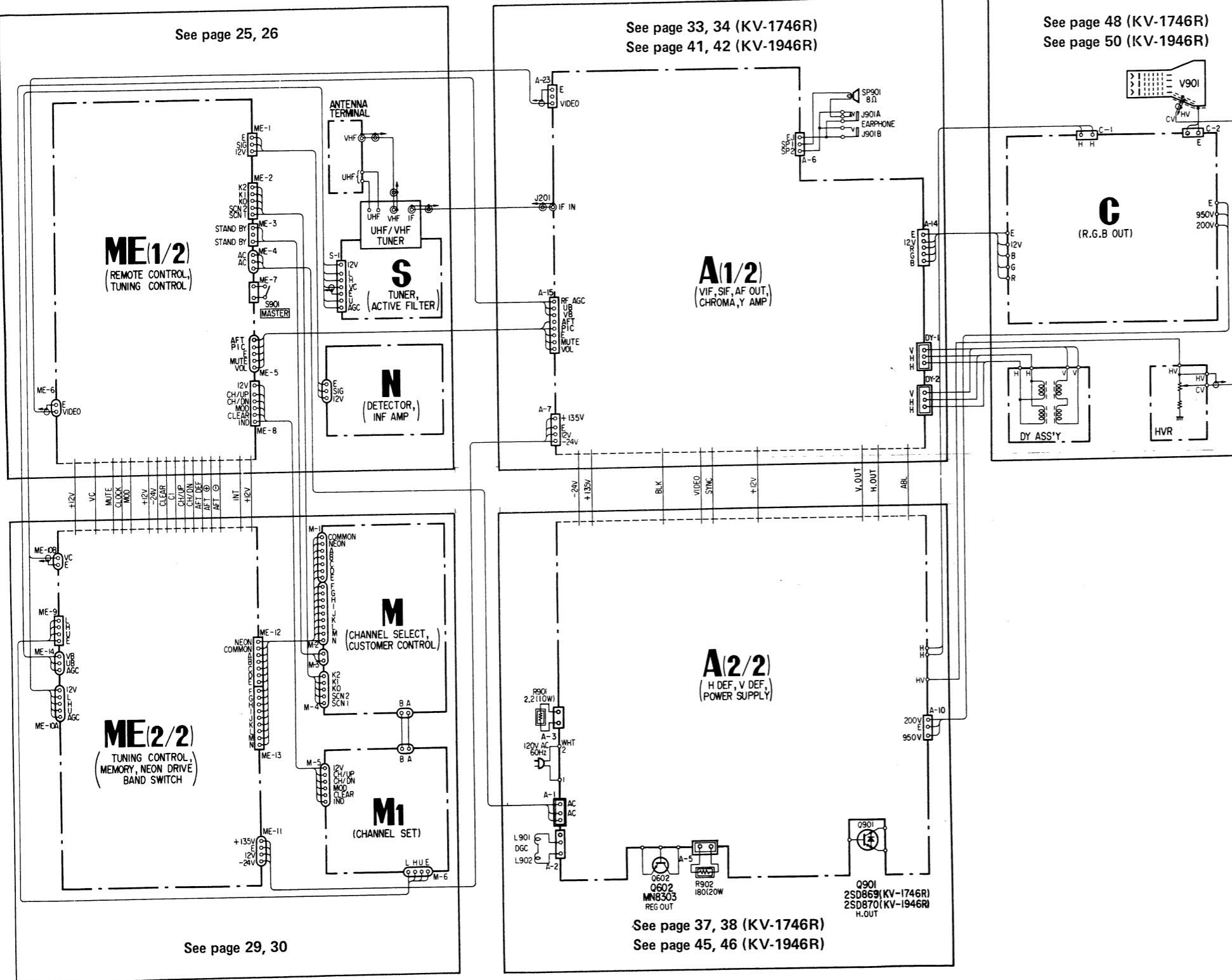
—BT-852—



**Note:** Tuner reference numbers are not included in the Electrical Parts List.

*MC-Service*

## 5-2. FRAME SCHEMATIC DIAGRAM



## 5-3. MOUNTING AND SCHEMATIC DIAGRAMS

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

- All mounting diagrams are viewed from conductor side.
- All capacitors are in  $\mu\text{F}$  unless otherwise noted. 50WV or less are not indicated except for electrolytics.  $\text{pF} : \mu\text{F}$
- All resistors are in ohms,  $\frac{1}{2}\text{W}$  unless otherwise noted.  $\text{k}\Omega : 1000\Omega$ ,  $\text{M}\Omega : 1000\text{k}\Omega$
- : nonflammable resistor.
- : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by in this manual have been carefully factory selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R563 adjustment on page 16). When replacing the part in below table, be sure to perform the related adjustment.

KV-1746R

Part replaced ()	Adjustment ()
C505, C520, C554, D502, IC501, R508, R515, R528, R529, R554, R563	R563 adjustment

KV-1946R

Part replaced ()	Adjustment ()
C505, D502, IC501, R508, R528, R529, R563	R563 adjustment

- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 20,000-ohm-per-volt VOM.
- : adjustment for repair.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- Voltages on ME and S board are taken with set selected to CH-A (VHF HIGH) position.
- : B+ bus.
- : B- bus.

**ME(1/2)**

[REMOTE CONTROL]  
TUNING CONTROL

**S**

[TUNER  
ACTIVE FILTER]

**N**

[DETECTOR]  
INF AMP

**ME(1/2)**

**S**

**N**

**A**

**B**

**C**

**D**

**E**

**F**

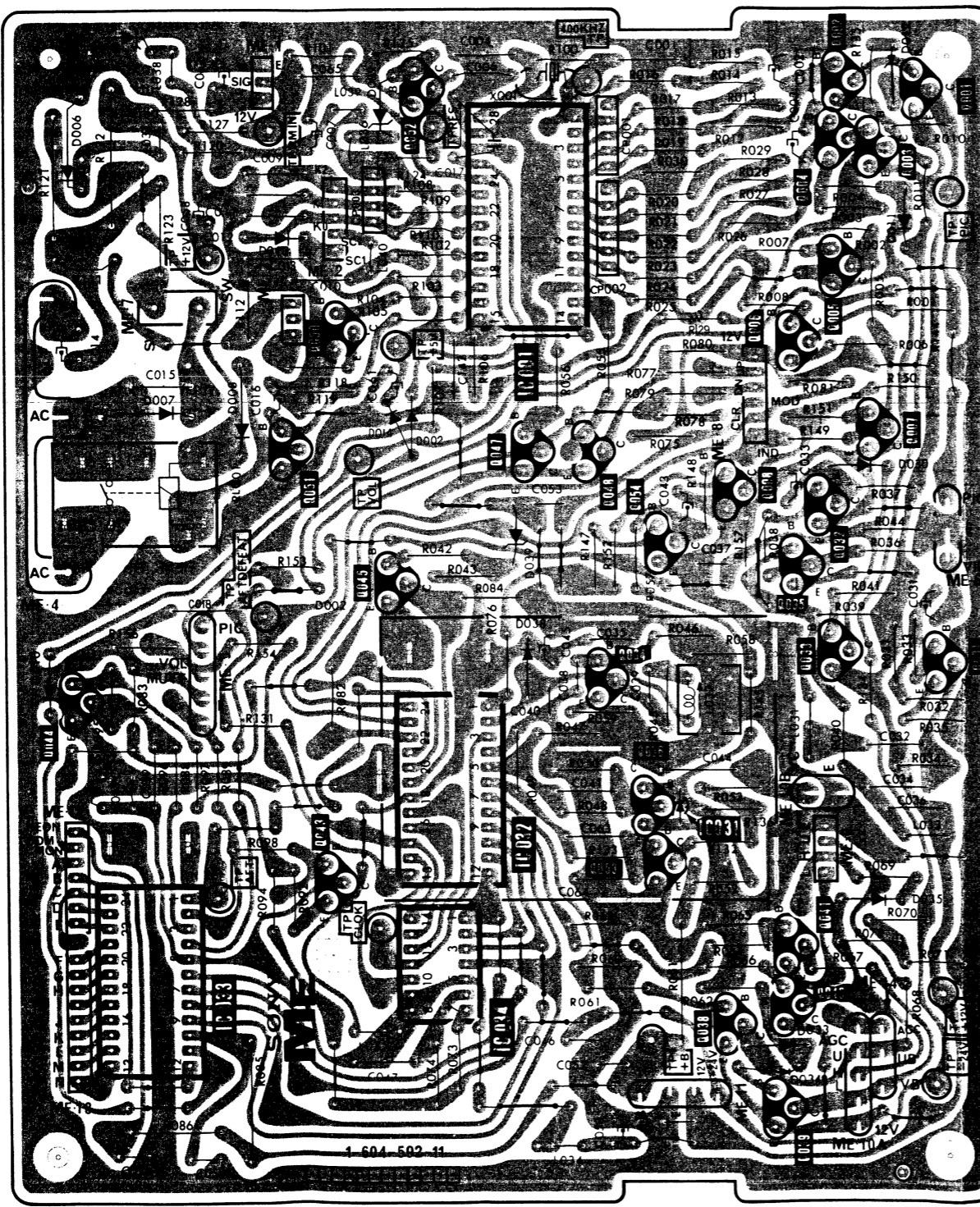
**G**

**H**

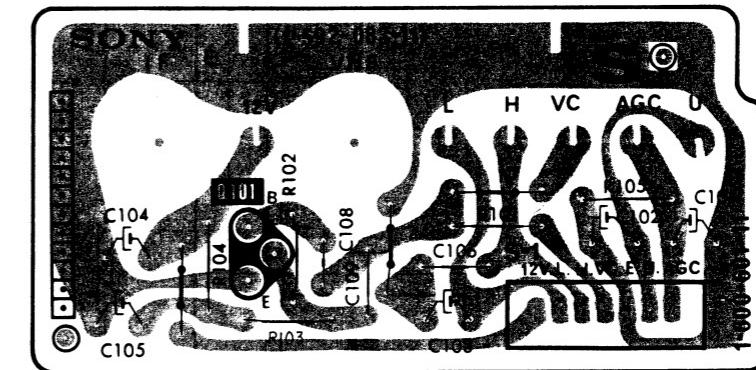
— ME (1/2) Board —



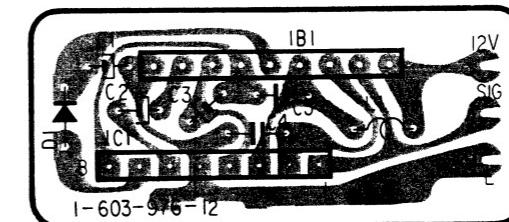
Q, IC	D
005	012
002	001
004	009
003	006
IC001	011
005	013
050	006
007	007 014
008	002
051	047
048	048
008	032
032	039
054	035
045	045
033	031
034	038
044	010 L032
IC032	036
IC031	036
053	035
043	043
IC034	033
IC033	040
040	038
038	033
039	034
039	039
Q, IC	D

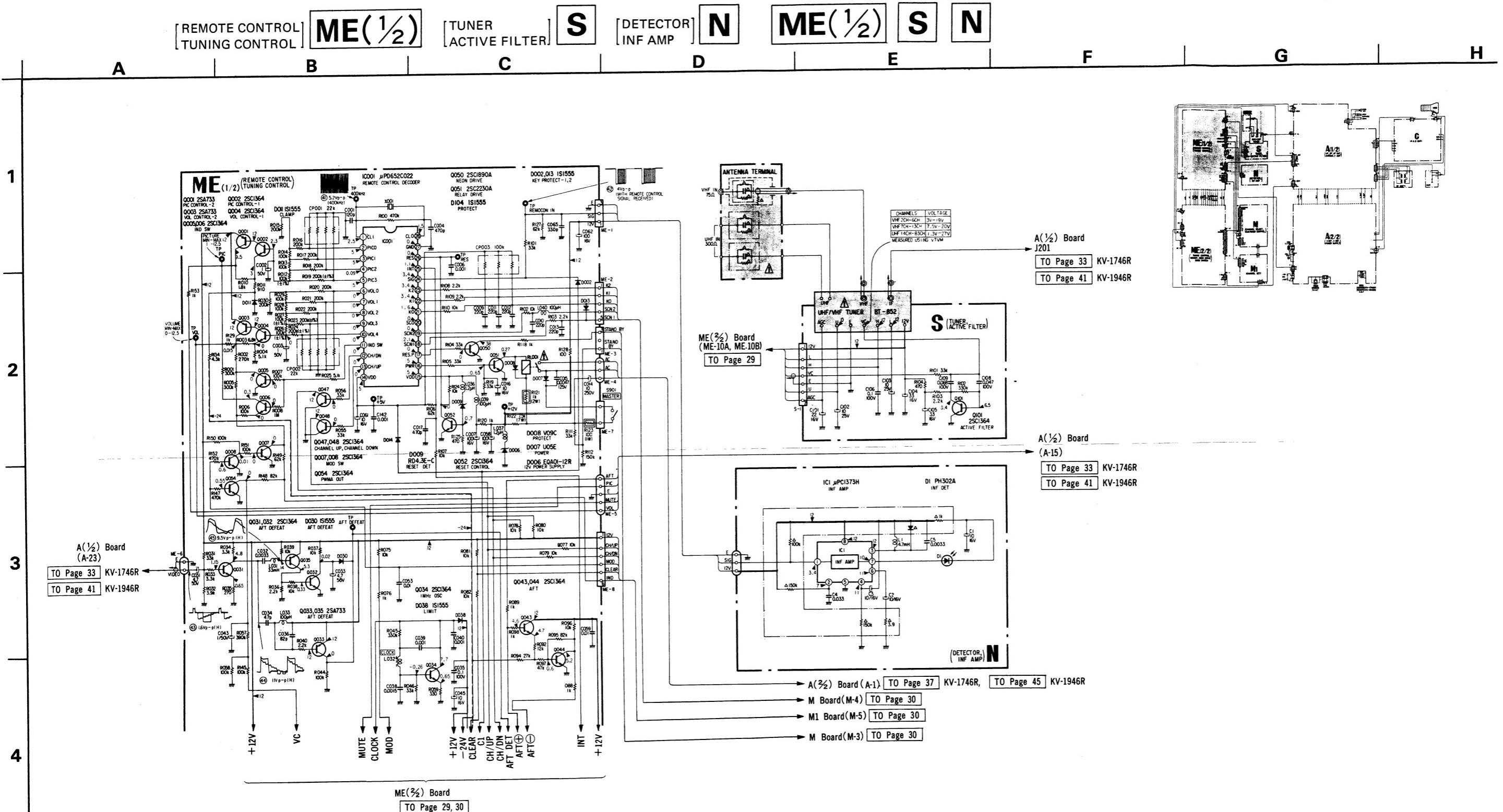


— S Board —



— N Board —





**Note:** The components identified by shading and marked with the  are critical for safety. Replace only with part number specified.

- Voltages on ME and S boards are taken with set selected to CH-A (VHF HIGH) position.

**ME(2/2)**

TUNING CONTROL  
MEMORY, NEON DRIVE  
BAND SWITCH

**M**

CHANNEL SELECT  
CUSTOMER CONTROL

**M1**

[CHANNEL SET]

**ME(2/2)**

**M**

**M1**

A

B

C

D

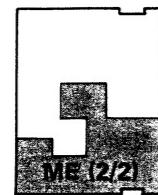
E

F

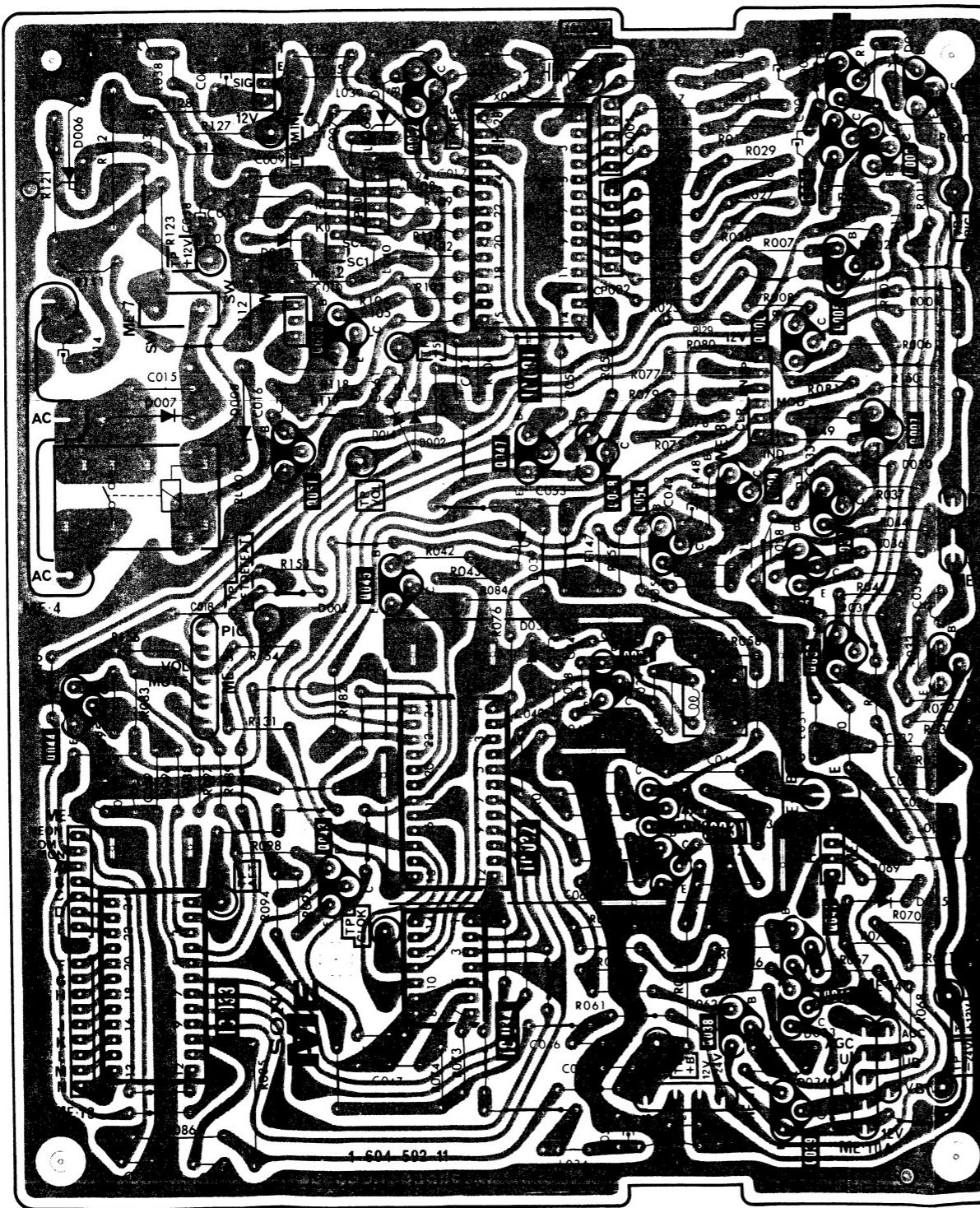
G

H

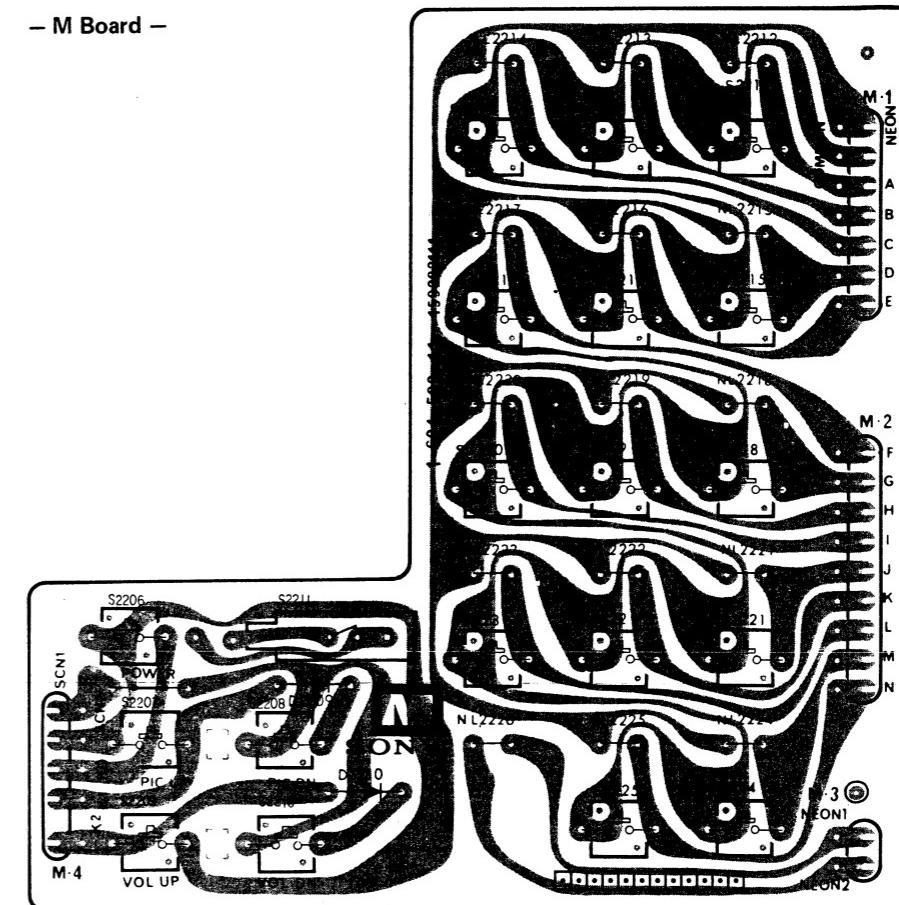
— ME (2/2) Board —



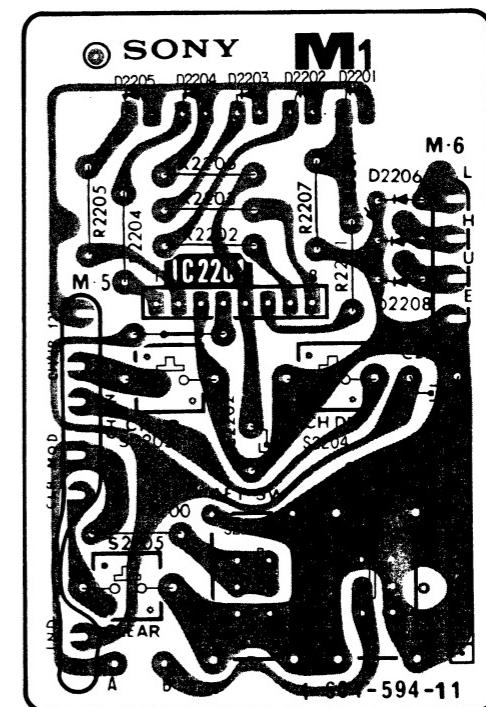
Q, IC	D
005	012
002	009
052 001	003
004	006
1C001	011
005	013
050 006	007 014
051 047	008 002
048	030
008 032	039
054 035	045
045	033 038
033 031	010 L032
1C032 1C031	036
043	035
053	041
1C034 1C033	034
040	038
038	033 034
039	039
Q, IC	D



— M Board —



— M1 Board —



[TUNING CONTROL  
MEMORY, NEON DRIVE  
BAND SWITCH] **ME(2/2)**

[CHANNEL SELECT  
CUSTOMER CONTROL] **M**

[CHANNEL SET] **M1**

**ME(2/2) M M1**

**A**

**B**

**C**

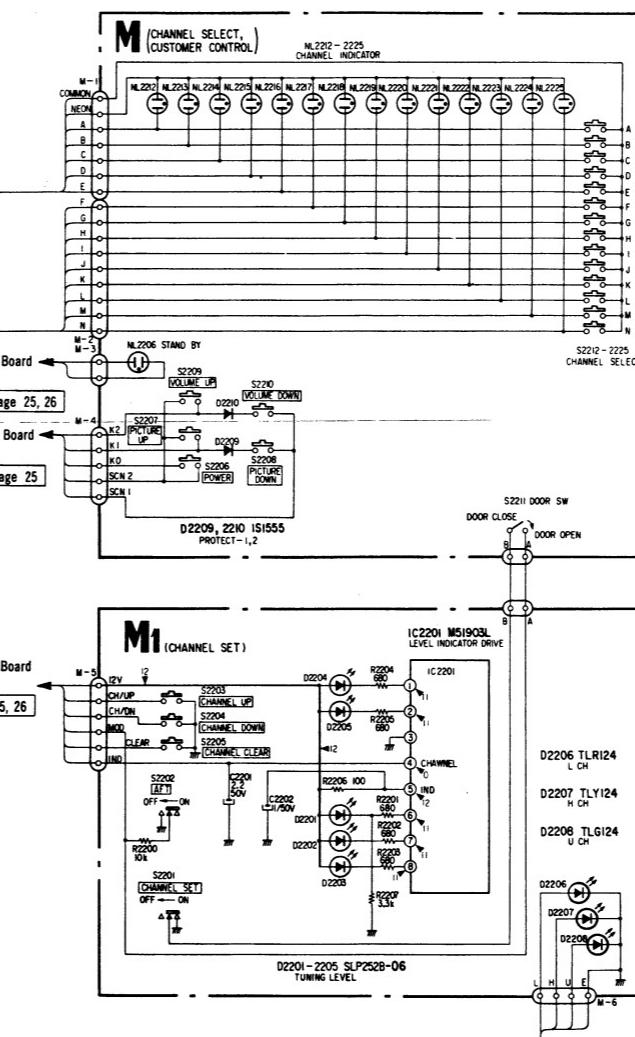
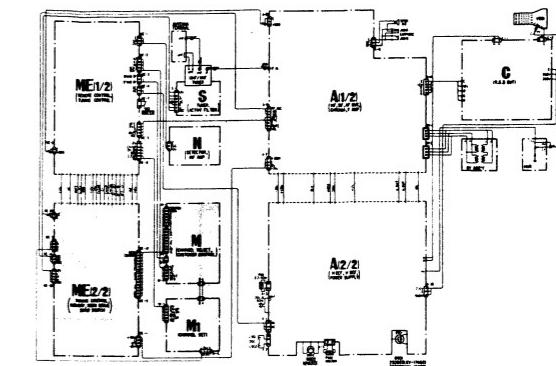
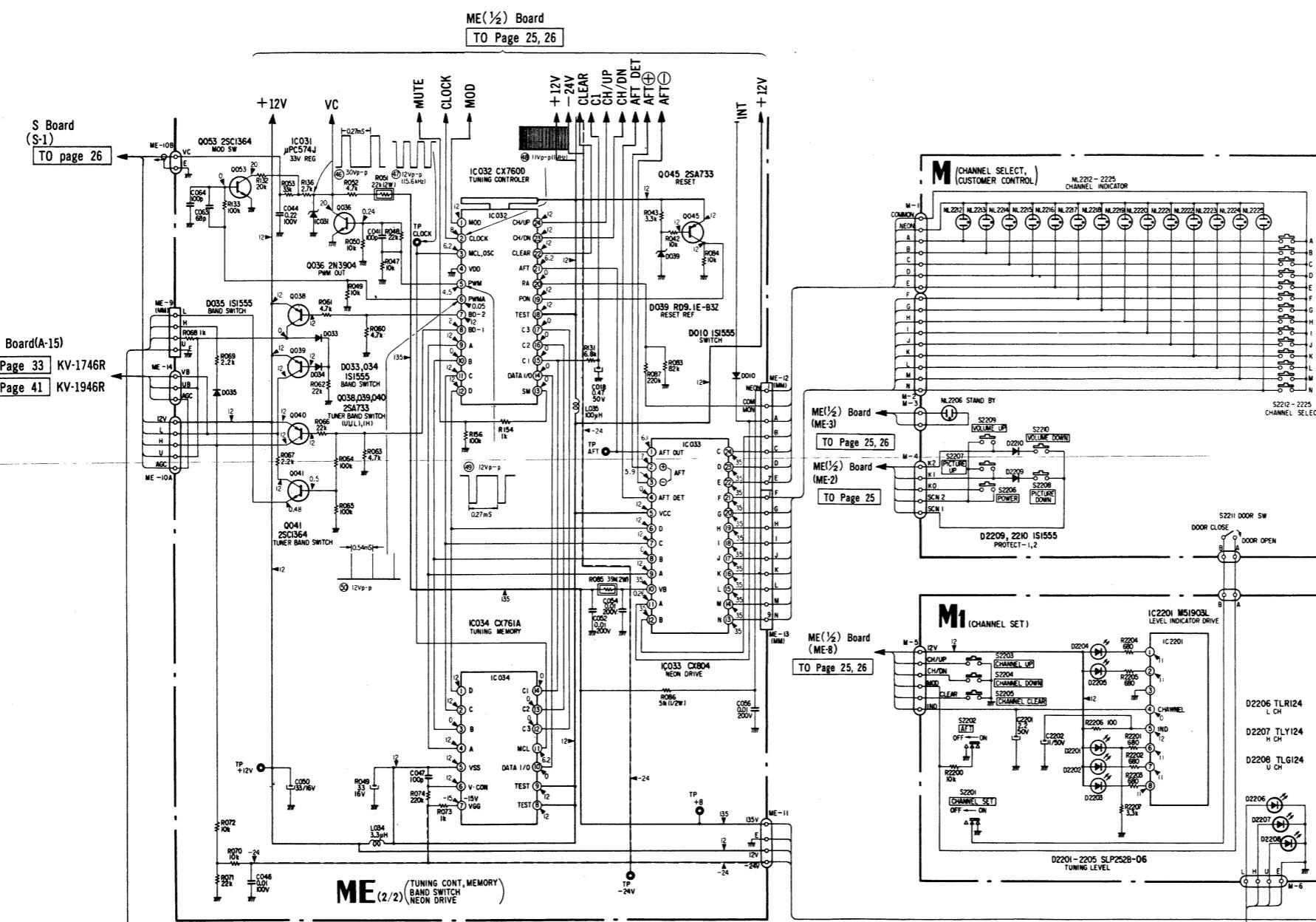
**D**

**E**

**F**

**G**

**H**



• Voltages on ME and S boards are taken with set selected to CH-A (VHF HIGH) position.  
**A(1/2) Board (A-7)**  
TO Page 33 KV-1746R  
TO Page 41 KV-1946R

MC-Service

A(1/2)

A(1/2)

[VIF, SIF, AF OUT]  
CHROMA, Y. AMP]

A

B

C

D

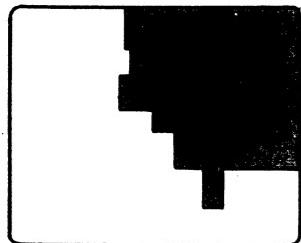
E

F

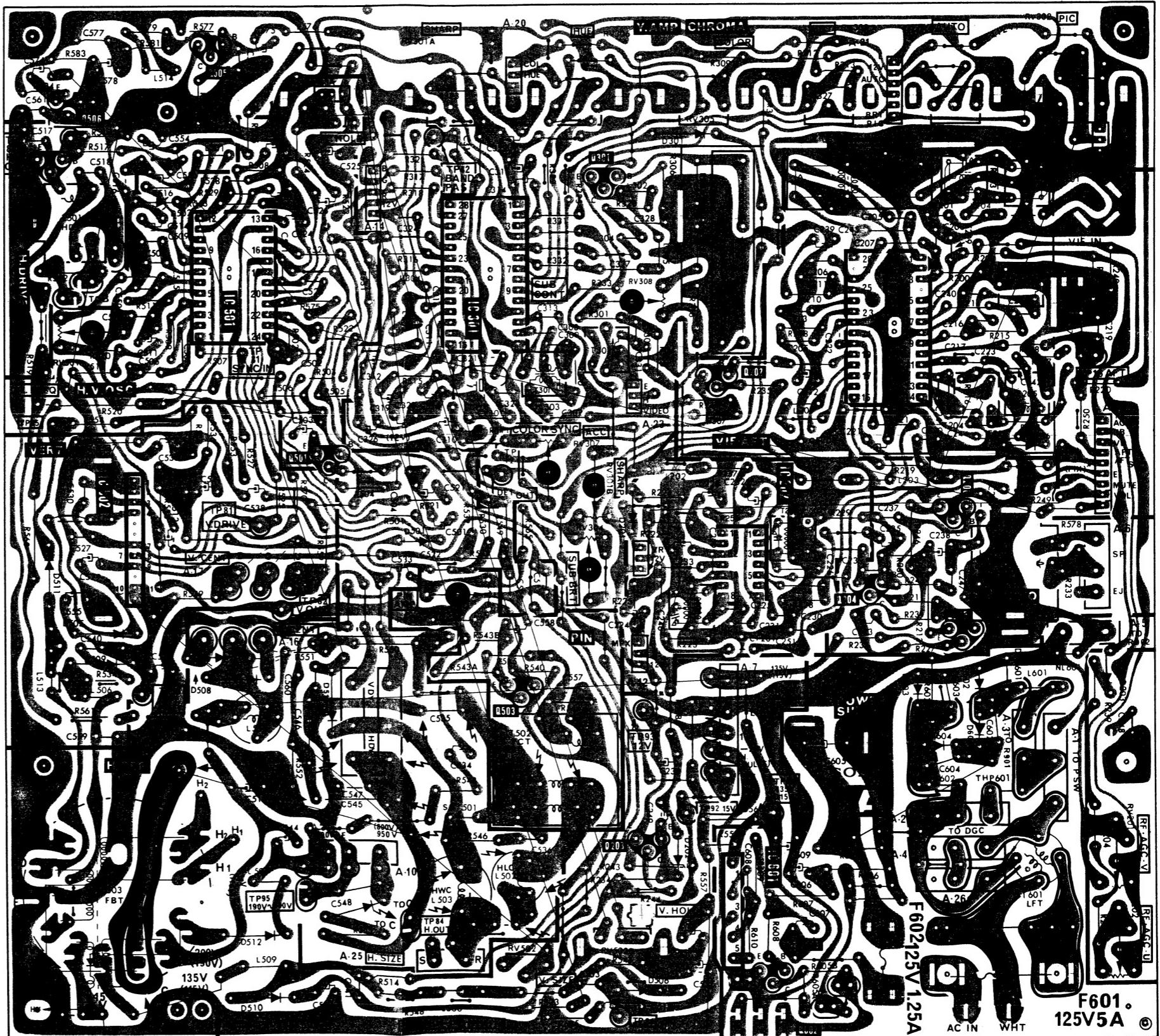
G

H

- A (1/2) Board -



Q-IC	D	ADJ
505		
506	30I	
502	30I	502
IC30I IC50I		RV308
IC20I		RV50I
202		
		CV30I
		RV307
206		
IC502	50I	T207
IC202	5II	RV304
204		T206
205		RV504
505	203	
508 602		
509 603		
507		
514		
601		
604		
203	204	
202		
IC60I	L503	RV20I
513		
512		
601		RV202
602	506 510 515	RV502
Q-IC	D	ADJ



[ VIF, SIF, AF OUT ]  
[ CHROMA, Y. AMP ]

A( $\frac{1}{2}$ )

A(1/2)

A

B

C

D

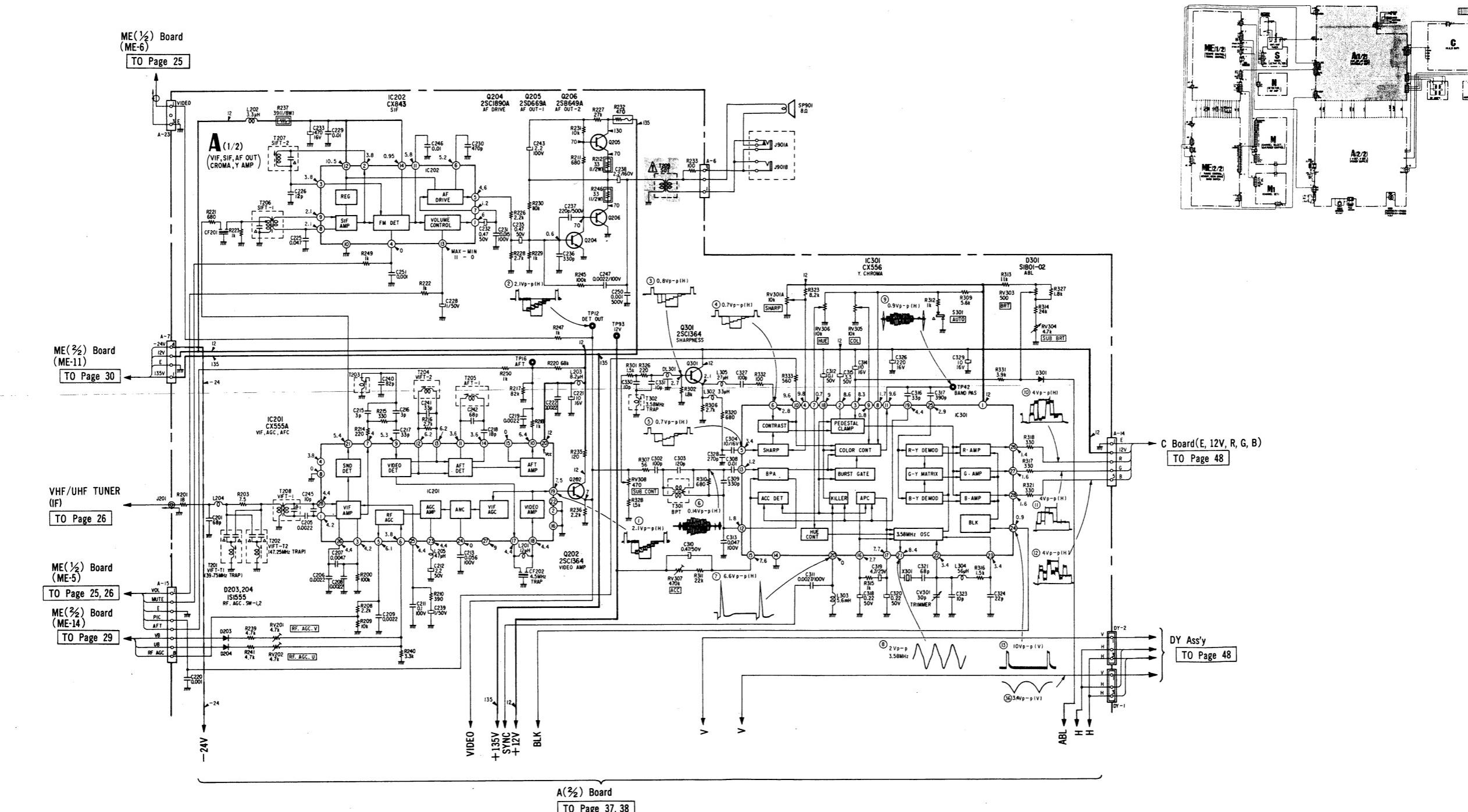
E

F

G

H

KV-1746R

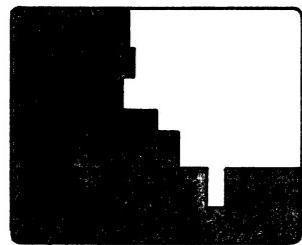


**Note:** The components identified by shading and marked with the  are critical for safety. Replace only with part number specified.

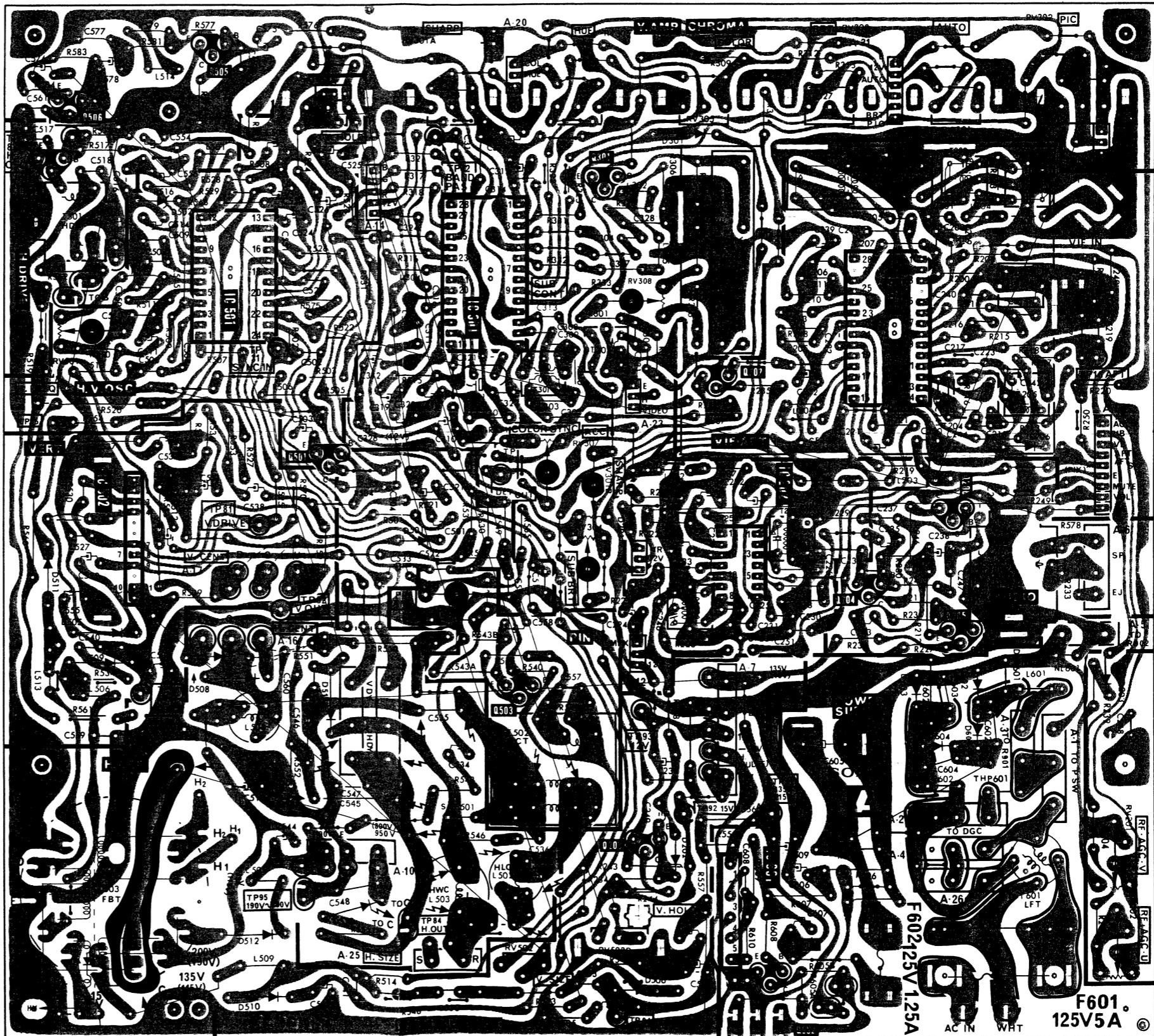
MC-Service

**A(2/2)** [H DEF, V DEF  
POWER SUPPLY]

**A**



Q-IC	D	ADJ
505		
506		
502 301	301	
IC301 IC501	502	
IC201		RV308
202		RV501
		CV301
		RV307
206		
IC502	501	T207
IC202	511	RV304
204		T206 RV504
205		
	505	
	203	
	508 602	
	509 603	
503	507	
	514	
	601	
	604	
203	204	
	202	
IC601	513	RV201
	512	L503
601		
602	506 510 515	RV202 RV502
Q-IC	D	ADJ



[H DEF, V DEF]  
POWER SUPPLY] A(½)

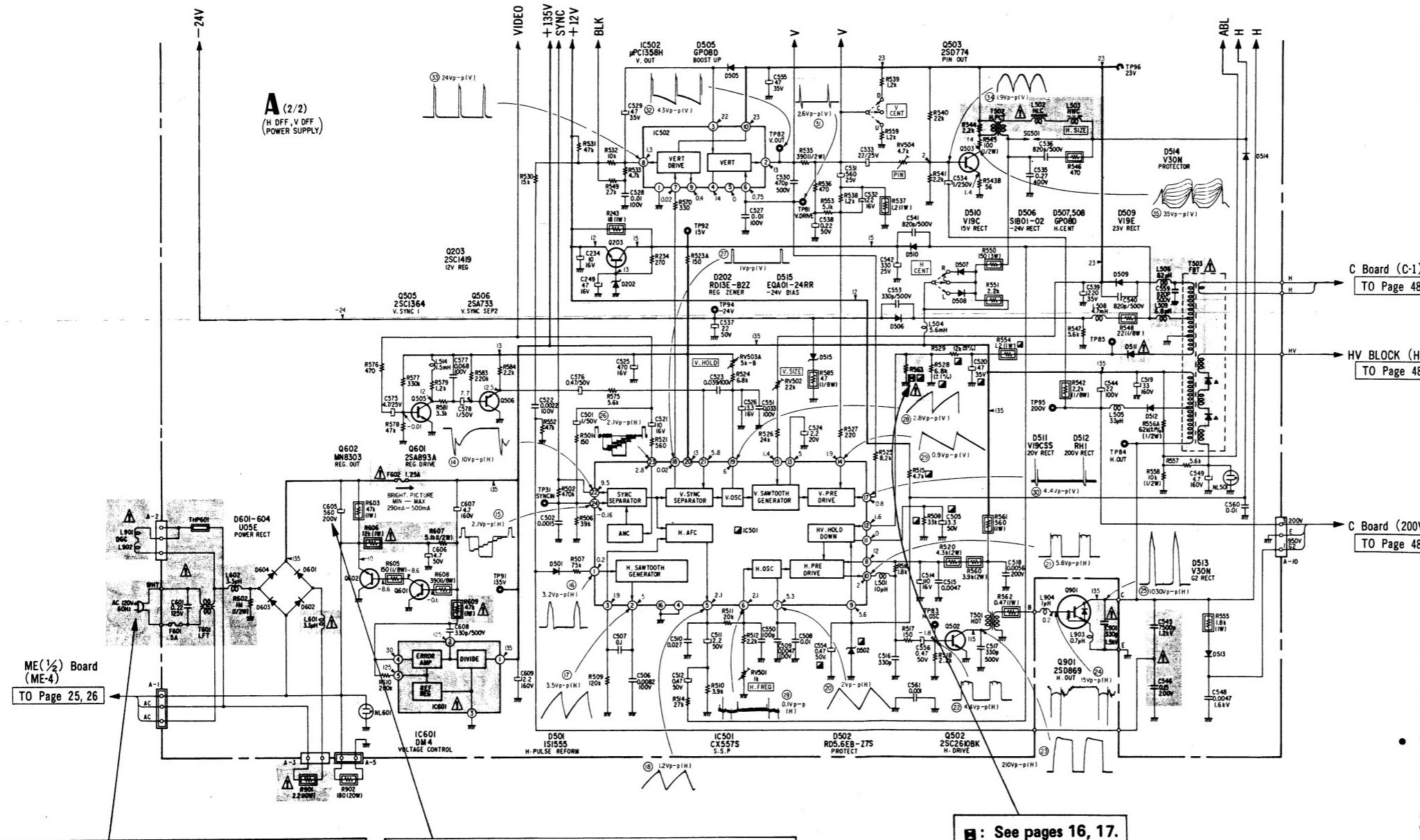
A(½)

A B C D E F G H

KV-1746R

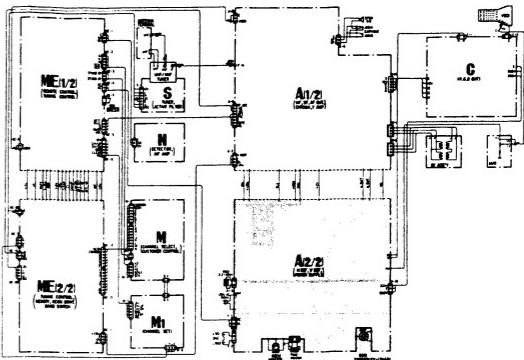
1

A(½) Board  
TO Page 33, 34



**CAUTION:**  
This set is equipped with a polarized AC power cord plug (one blade of the plug is wider than the other), be sure to use it having the specified part number and connect it as shown in this diagram.

**CAUTION:**  
When taking a broken fuse (F602) off, discharge across C605 to avoid shock hazard.



2

C Board (C-1)  
TO Page 48

HV BLOCK (HV)  
TO Page 48

3

C Board (200V, E, 950V)  
TO Page 48

4

The components identified by **█** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- When replacing components identified by **█**, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by **█** and repeat the adjustment until the specified value is achieved. (Refer to R563 adjustment on page 16, 17).
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced (█)	Adjustment (█)
C505, C520, C554, D502, IC501, R508, R515, R528, R529, R554, R563	R563 adjustment

5

A(1/2)

A(1/2)

[VIF, SIF, AF OUT]  
CHROMA, Y. AMP

A

B

C

D

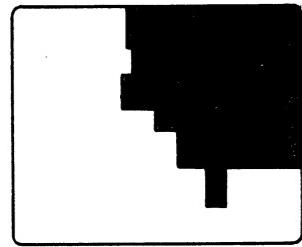
E

F

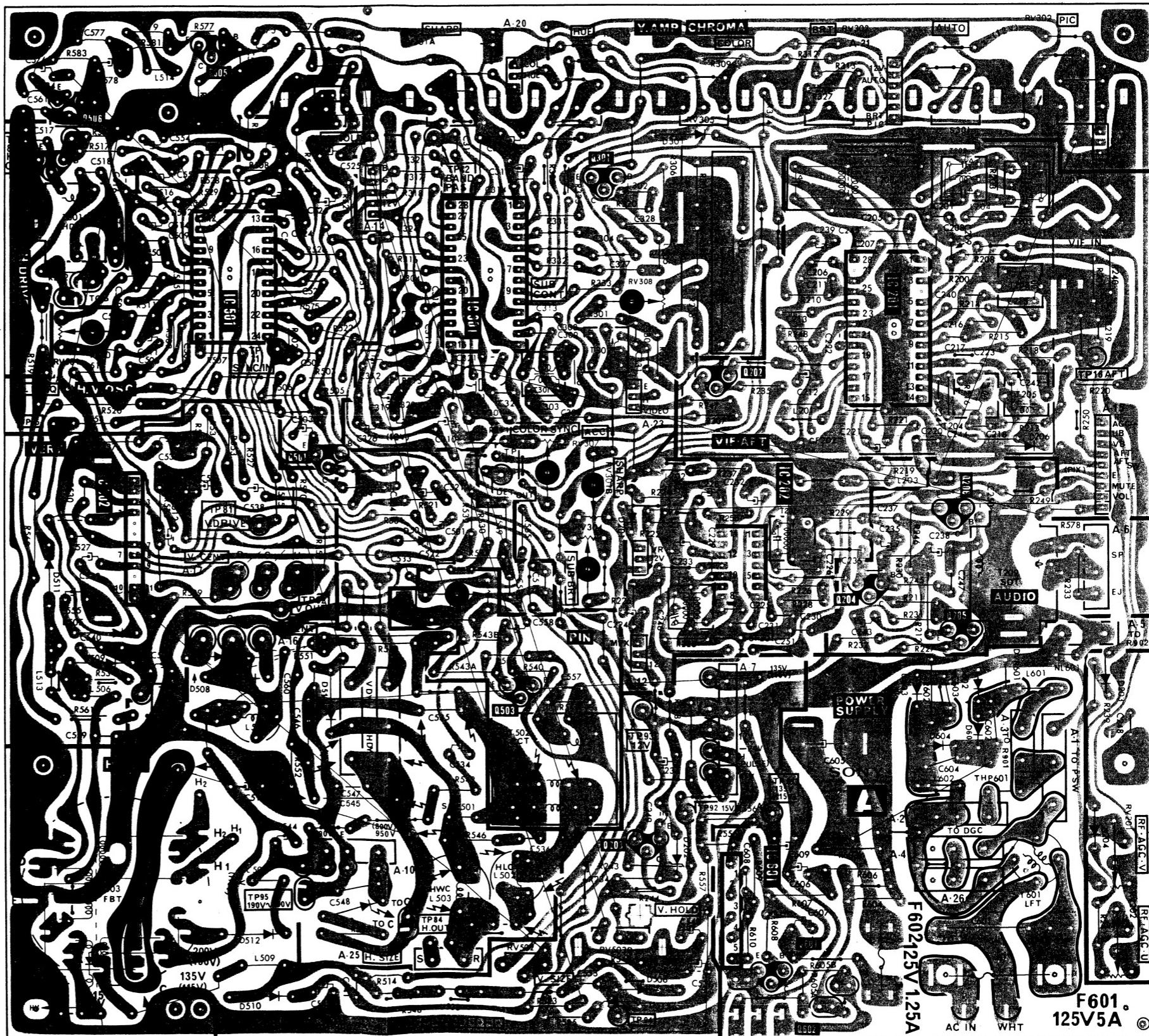
G

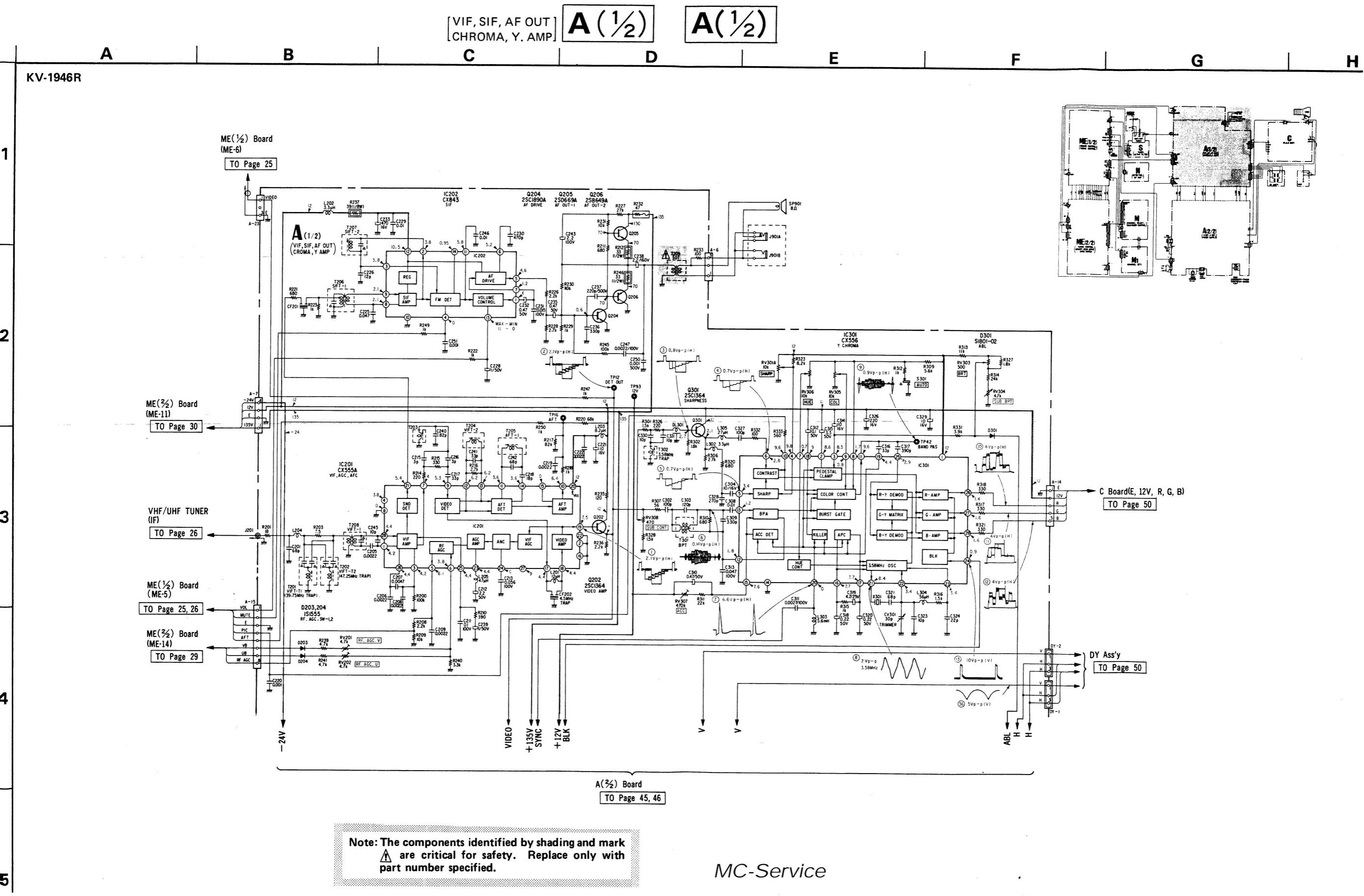
H

- A (1/2) Board -



Q-IC	D	ADJ
505		
506	301	
502	301	502
IC301 IC501		RV308
IC201		RV501
202		
	CV301	
	RV307	
206		
IC502	501	T207
IC202		RV304
204		T206 RV504
205		
505	501	
508 602		
509 603		
507		
514		
601		
604		
203	204	
202		
IC601		RV201 L503
513		
512		
601		RV202
602	506 515	RV502
Q-IC	D	ADJ





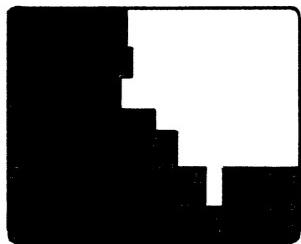
MC-Service

A(2/2)

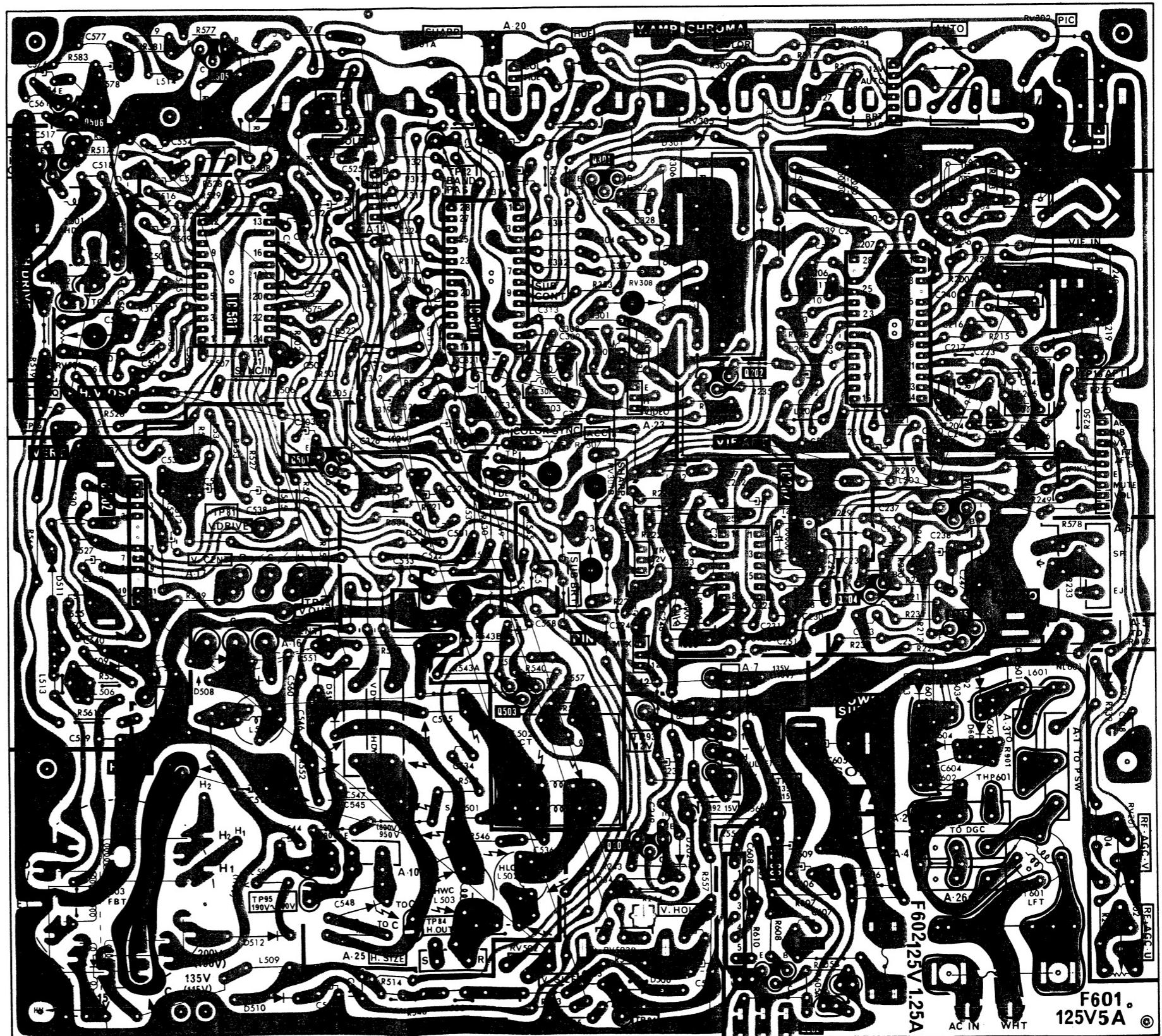
A(2/2)

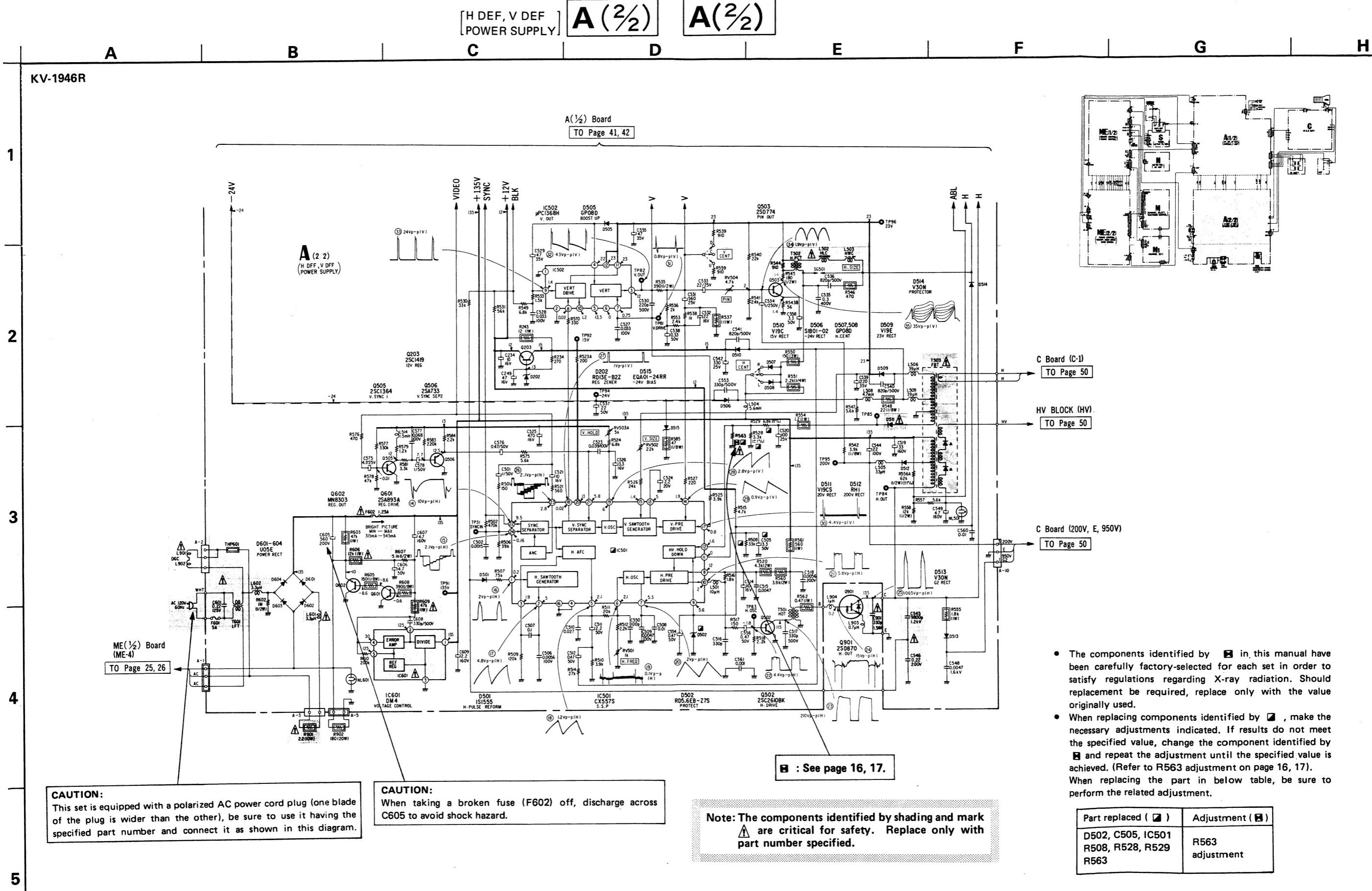
[H DEF, V DEF ]  
[POWER SUPPLY]

- A (2/2) Board -



Q-IC	D	ADJ
505		
506		
502 301	301 502	
IC301 IC501		RV308
IC201		RV501
202		CV301
		RV307
206		
IC502	501	T207
IC202	511	RV304
204		T206 RV504
205		
503	505 508 509 507 514 601 604	203 602 603 204 202 513 512
203	204	
IC601	513 512	RV201 L503
601		RV202
602	506 510 515	RV502
s		
Q-IC	D	ADJ





- The components identified by in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R563 adjustment on page 16, 17). When replacing the part in below table, be sure to perform the related adjustment.

Part replaced ()	Adjustment ()
D502, C505, IC501 R508, R528, R529 R563	R563 adjustment

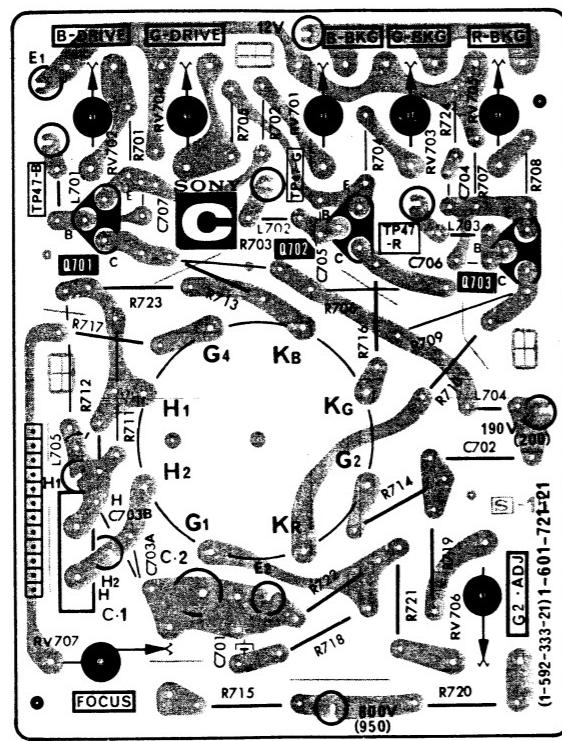


- C Board -

KV-1746R

MC-Service

1

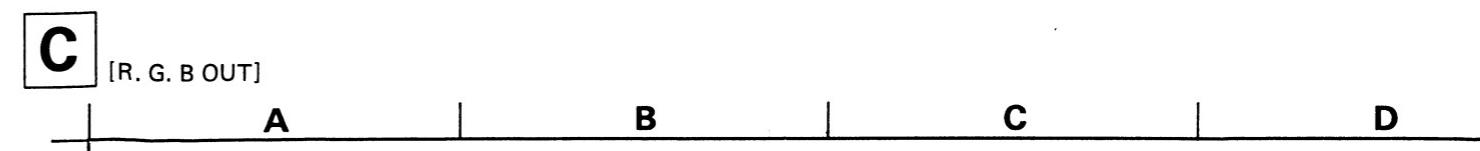


2

3

4

5



[R.G.B OUT] C [R.G.B OUT]

A

B

C

D

1

1

2

2

3

3

4

4

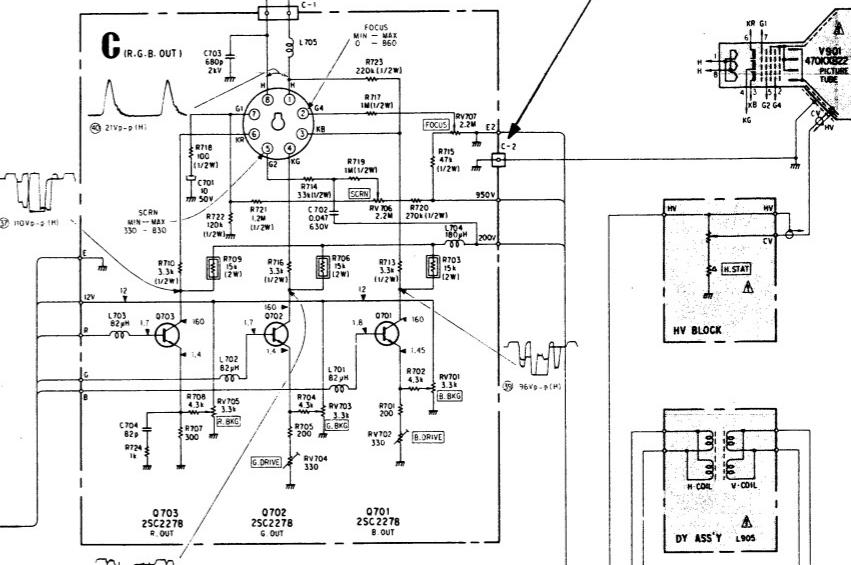
5

5

**CAUTION:**  
Be sure to connect C-2 connector for safety.

A(½) Board  
Heater

[TO Page 38]



A(½) Board  
(A-14)

[TO Page 34]

A(½) Board  
(A-10)

[TO Page 38]

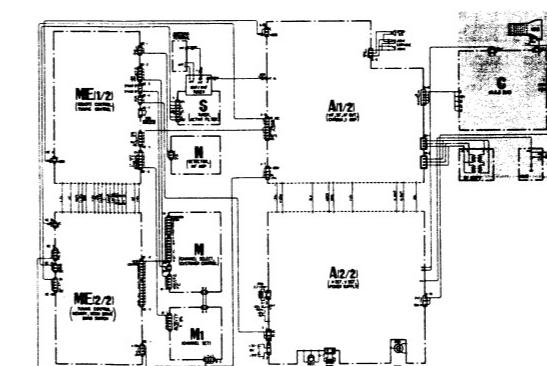
A(½) Board  
[TO Page 38]

HV

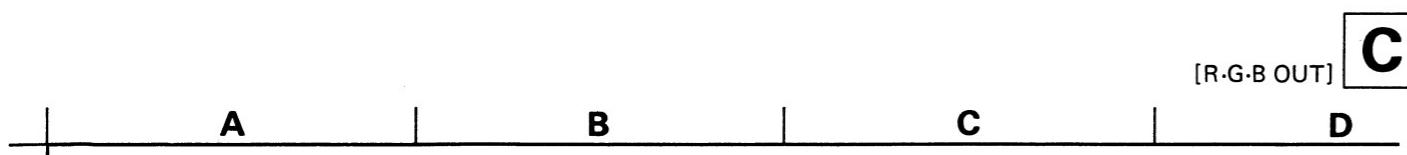
H, DY

V, DY

[TO Page 34]



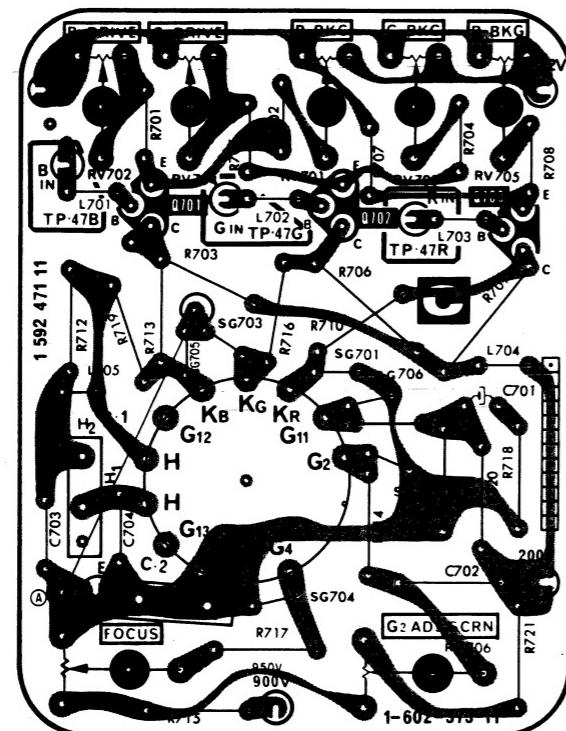
Note: The components identified by shading and mark  
are critical for safety. Replace only with  
part number specified.



- C Board -

KV-1946R

1



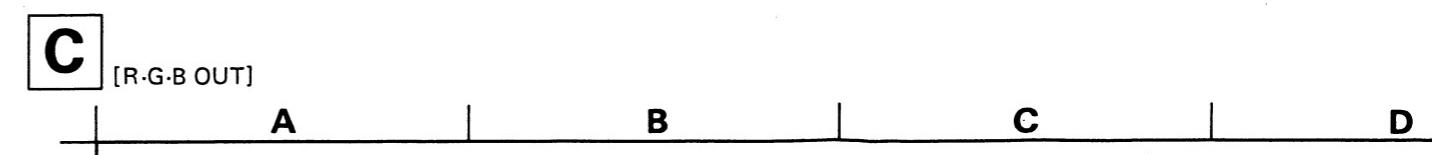
2

3

4

5

MC-Service



**CAUTION:**  
Be sure to connect C-2 connector for safety.

1

1

2

2

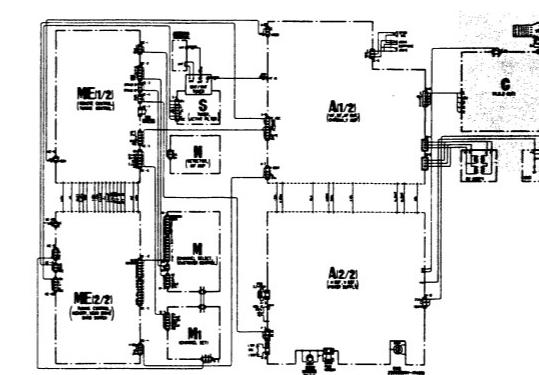
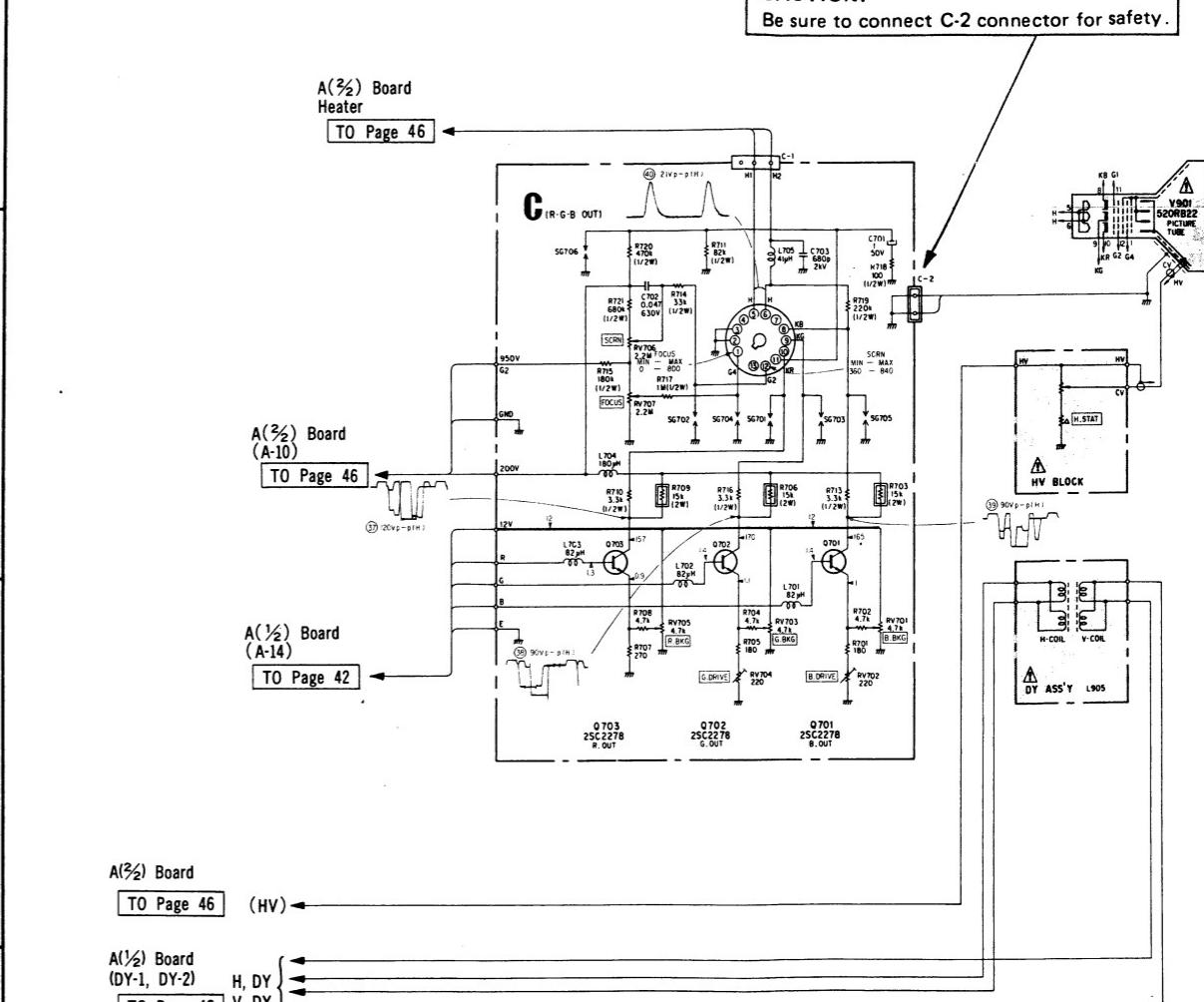
3

3

4

4

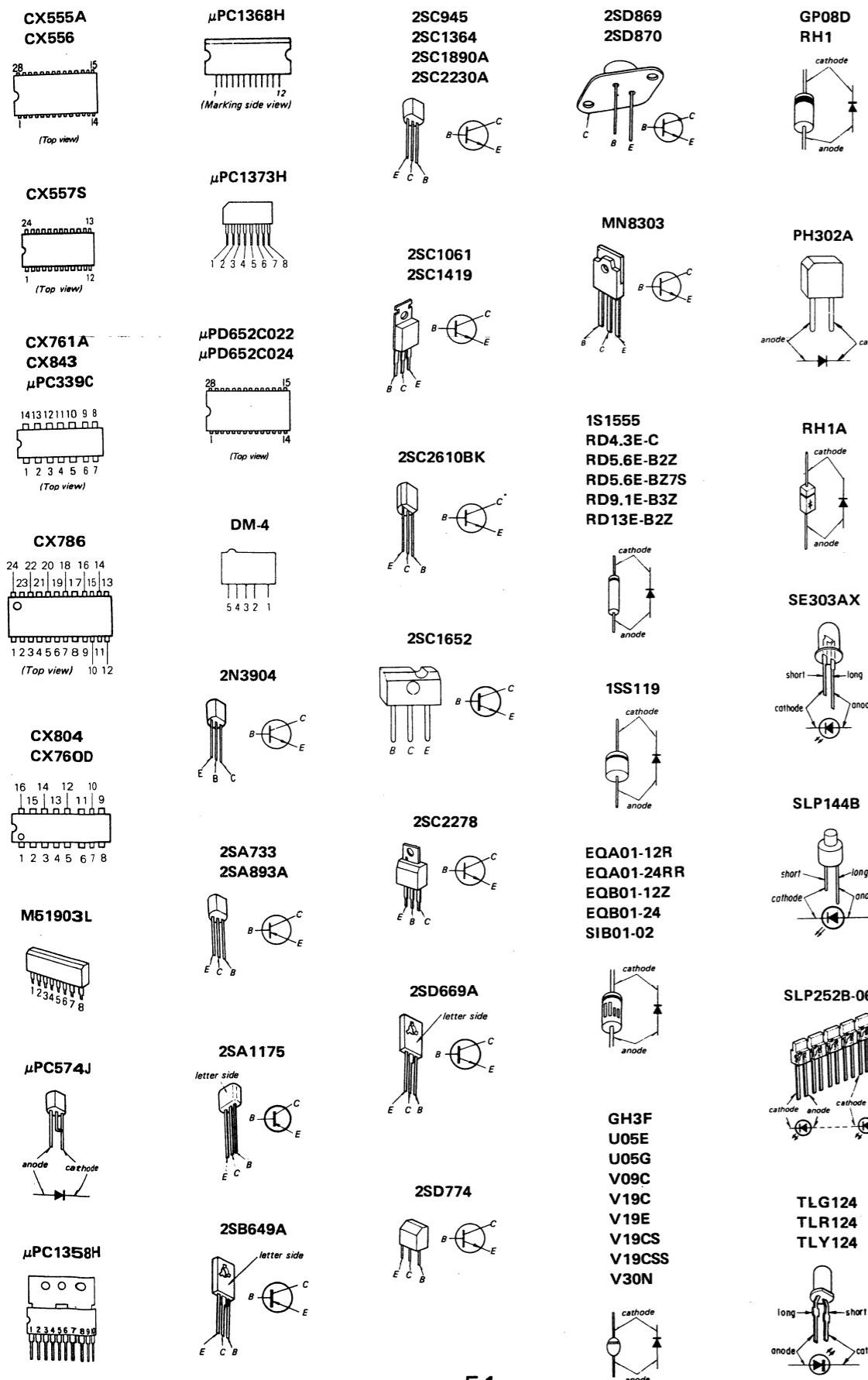
5



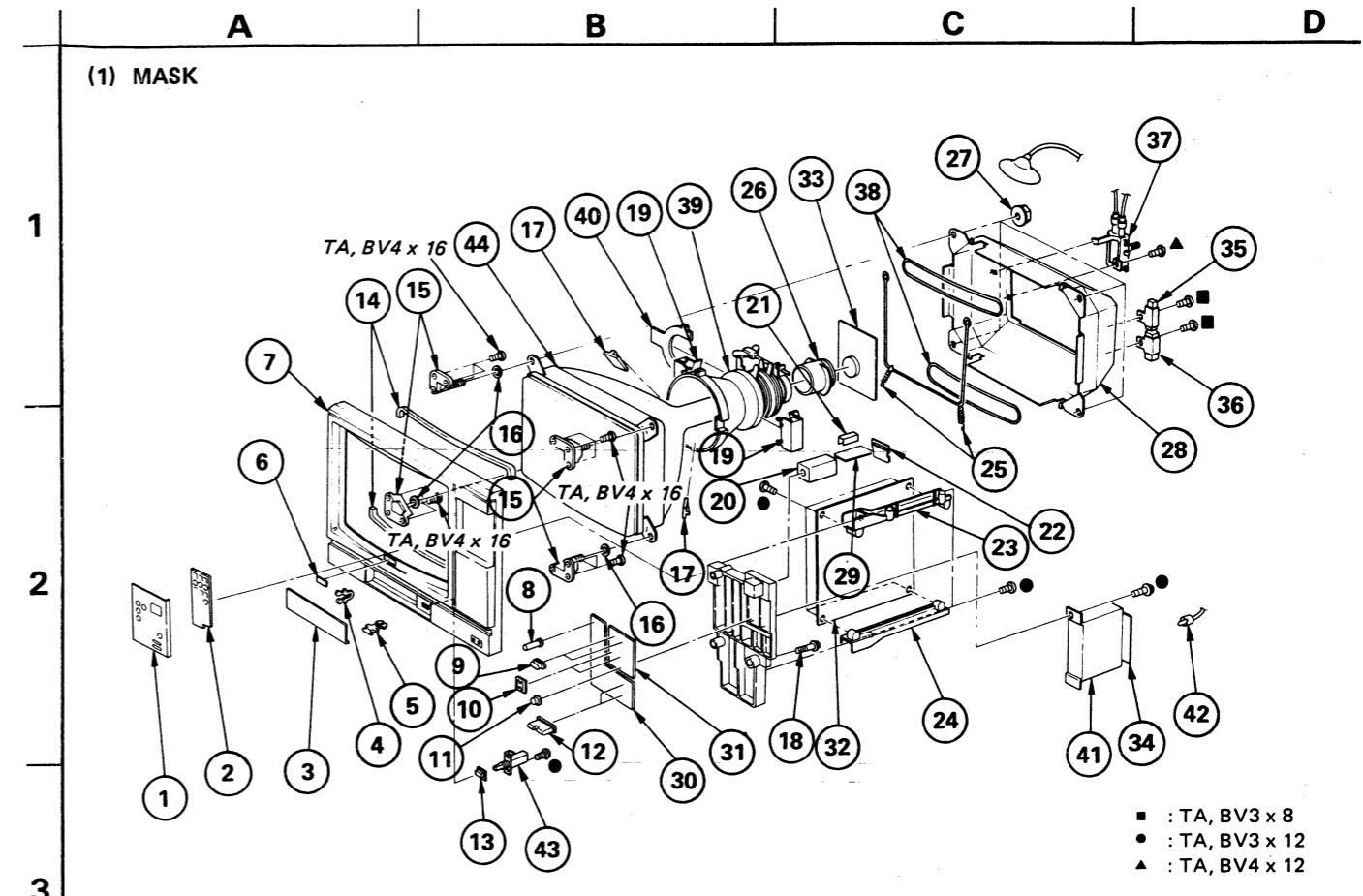
Note: The components identified by shading and mark  
are critical for safety. Replace only with  
part number specified.

## SECTION 6 EXPLODED VIEWS

### 5.4. SEMICONDUCTORS



—51—



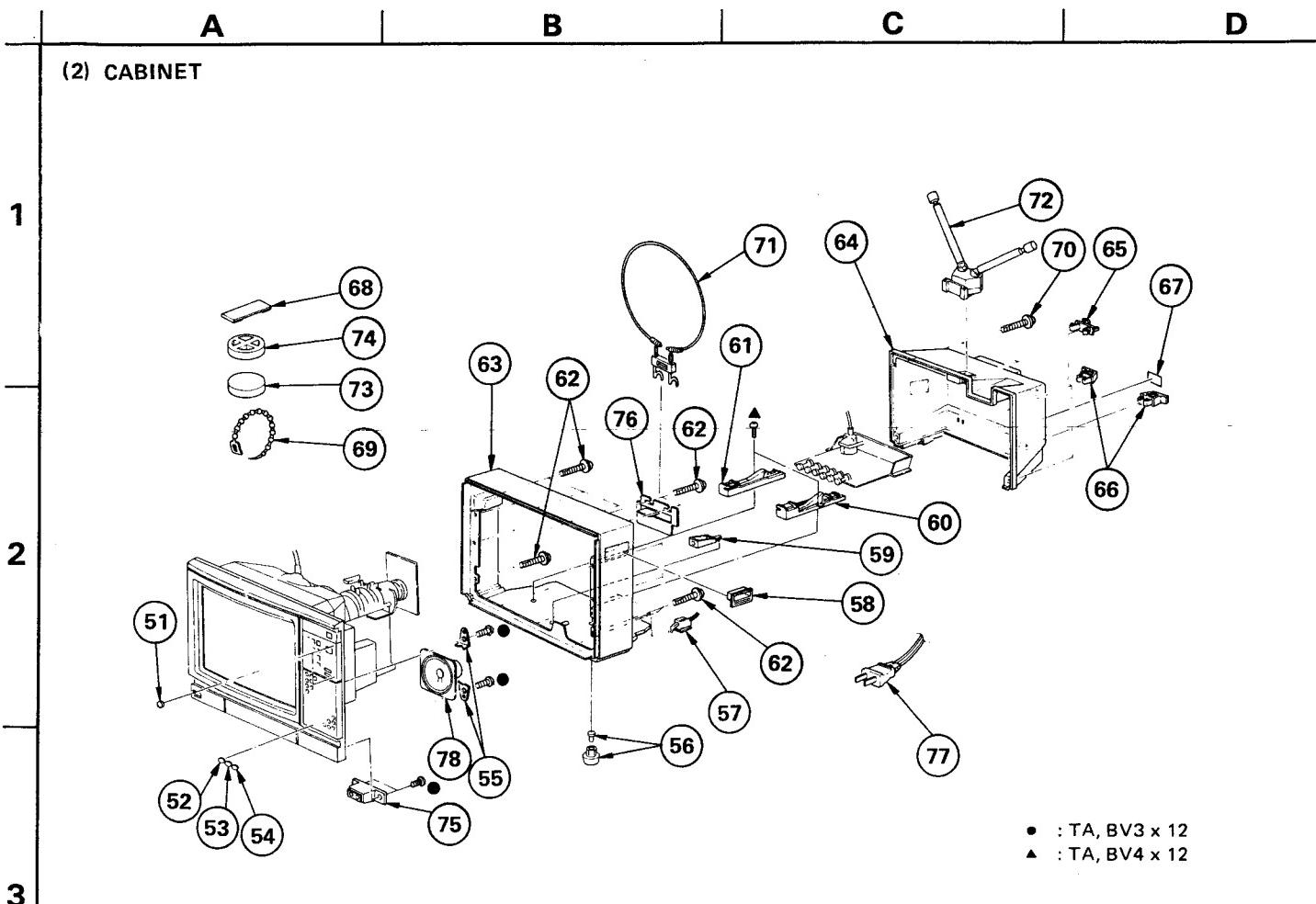
No.	Part No	Description	Remark	No.	Part No	Description	Remark
1	X-4350-902-0	DOOR ASSY, CHANNEL		22	▲:4-342-118-00	LID, SHIELD CASE, R	
2	X-4350-903-0	CASE ASSY, LABEL		23	▲:4-334-912-00	CLAMP (B), M PC BOARD	
3	X-4350-901-0	DOOR ASSY, ADJUSTMENT	51	24	▲:4-334-911-00	CLAMP (A), M PC BOARD	
4	4-342-511-00	RETAINER, DOOR		25	4-303-774-XX	SPRING	
5	3-703-035-31	SHAFT, DOOR		26	▲:X-4333-12D-0	PROTECTOR ASSY, CRT NECK	(KV-1946R)
6	3-701-912-00	EMBLEM, SONY, (LARGE)	(KV-1946R)	27	▲:A-452-214-00	CRT, NECK ASSY (H TYPE)	(KV-1746R)
	3-701-933-00	EMBLEM, SONY, (LARGE)	(KV-1746R)	28	▲:4-306-034-00	FLANGE NUT, (B) 5MM	
7	X-4348-101-0	BEZEL SUB ASSY	(KV-1746R)	29	▲:4-330-918-00	SHIELD (17V), CRT	(KV-1746R)
	X-4350-905-0	BEZEL SUB ASSY (KV-1946R)	6,14,51,52,53,54	30	▲:4-342-459-00	SHIELD (19V), CRT	(KV-1946R)
8	4-348-501-00	PUSH BUTTON		31	▲:1-603-976-00	N BOARD	
9	4-333-703-00	BUTTON, CHANNEL		32	▲:1-604-593-00	M BOARD	
10	4-314-869-00	INSULATOR, SLIDE SWITCH		33	▲:1-604-594-00	M1 BOARD	
11	4-335-306-00	BUTTON, CLEAR		34	▲:A-1306-121-A	ME BOARD	
12	4-350-917-00	BUTTON, SEESAW		35	▲:A-1330-301-A	C BOARD, COMPLETE	(KV-1946R)
13	4-333-101-00	PUSH BUTTON		36	1-205-608-00	RES, CEMENT 180 (20W)	
14	4-312-539-00	CUSHION (A), BEZEL		37	▲:1-217-605-00	RES, WIREWOUND 2.2 (10W)	
15	▲:4-339-514-00	BRACKET (S), CRT	(KV-1946R)	38	▲:1-226-733-00	RES ASSY, HIGH-VOLTAGE	
-16	▲:4-339-514-00	BRACKET (L-1), CRT	(KV-1746R)	39	▲:1-425-894-51	COIL, ERASE	(KV-1746R)
-17	4-305-312-00	WASHER, ADJUSTING, CRT	(KV-1746R)	40	▲:1-425-901-22	COIL, ERASE	(KV-1946R)
16	4-305-312-00	WASHER, ADJUSTING, CRT		41	▲:1-451-182-00	DEFLECTION YOKE (SY108A)	(KV-1946R)
17	3-703-003-00	SPACER, DY		42	▲:1-451-202-00	DEFLECTION YOKE (SY75B)	(KV-1746R)
18	4-319-520-00	SCREW, SPECIAL, +PW4X30		43	1-551-249-00	MAGNET, BMC	
19	4-334-201-00	COVER, TERMINAL, SY-75		44	▲:1-463-264-00	TUNER (BT-852)	
	▲:4-334-246-00	COVER, TERMINAL, SY108		45	1-553-262-00	CABLE, P-P	
20	▲:4-342-117-11	CASE, SHIELD (MAIN), R		46	1-738-501-05	SWITCH, PUSH (POWER SWITCH)	
21	▲:4-348-551-00	PLATE, SHIELD		47	▲:8-738-705-05	PICTURE TUBE (470KXB22)	(KV-1746R)
				48	▲:8-738-705-05	PICTURE TUBE (520RB22)	(KV-1946R)

#### NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- As to the part numbered with E-, refer to the electrical parts list.
- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.



No.	Part No	Description	Remark	No.	Part No	Description	Remark	
51	4-314-871-00	CUSHION		64	4-348-121-00	COVER, BACK	(KV-1746R)	
52	3-703-344-01	CHIP, COLOR		65	4-350-909-00	COVER, BACK	(KV-1946R)	
53	3-703-344-11	CHIP, COLOR		66	4-329-439-00	CLAMPER, FEEDER		
54	3-703-344-21	CHIP, COLOR		67	4-348-102-00	HOLDER, CORD		
55	▲:4-338-106-00	HOLDER, SPEAKER		68	▲:4-350-939-00	LABEL, MODEL NUMBER (USA)	(KV-1746R)	
56	X-3701-047-2	FOOT ASSY		69	▲:4-308-870-00	LABEL, MODEL NUMBER (USA)	(KV-1946R)	
57	▲:4-334-223-00	GROMMET, AC CORD		70	4-329-143-00	PERMALLOY ASSY CONVERGENCE		
58	4-329-143-00	HANDLE		71	3-701-910-00	CLIP, LEAD WIRE		
59	▲:4-334-214-00	BRACKET, BEZEL		72	Y-2063-103-0	SCREW, SPECIAL (DIA. 3.8X20)		
60	4-335-190-00	GUIDE (RIGHT), FRAME		73	Y-2201-611-0	AN-15 LOOP ANTENA		
61	4-335-191-00	GUIDE (LEFT), FRAME		74	1-452-032-00	OVERALL ASSY, AN-16		
62	4-302-429-00	SCREW, TAPPING, +PW4X20		75	1-452-094-00	MAGNET, DISC 10mm Ø		
63	X-4350-907-0	CABINET ASSY (KV-1946R)	56, 58, 59, 60	76	1-507-372-00	MAGNET, DISK TYPE 15mm Ø		
	X-4348-103-0	CABINET ASSY (KV-1746R)	15-1, 15-2, 56, 58, 59	77	▲:1-536-584-00	JM-35 DOUBLE JACK		
				78	▲:1-551-454-21	TERMINAL BOARD ASSY, ANTENNA		
					78	1-502-766-00	CORD, POWER	
						SPEAKER		

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- As to the part numbered with E-, refer to the electrical parts list.
- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

A

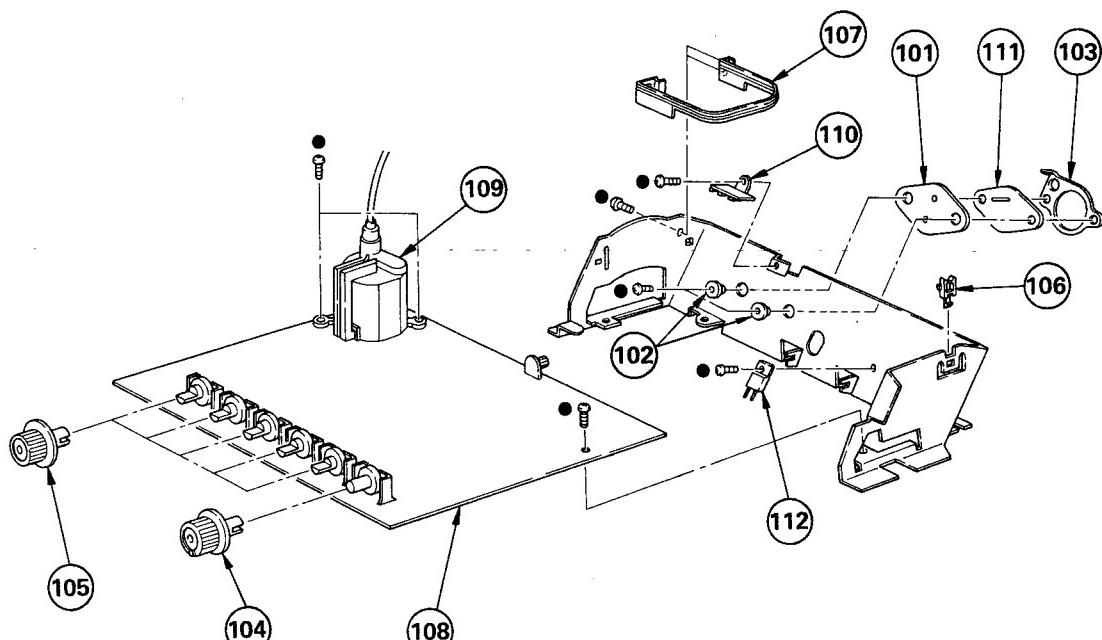
B

C

D

## (3) CHASSIS

1



2

3

No.	Part No	Description	Remark	No.	Part No	Description	Remark
101	3-701-353-00	SPACER, MICA		108	▲:A-1295-473-A	A BOARD, COMPLETE	(KV-146R)
102	3-703-320-00	BUSHING (A), TRANSISTOR		109	▲:A-1295-487-A	A BOARD, COMPLETE	(KV-146R)
103	▲:4-314-938-01	RETAINER (T0-3), TRANSISTOR		110	△:A-1439-254-00	TRANSFORMER ASSY, FLYBACK	
104	4-333-124-00	KNOB, SELECTION		111	1-536-401-XX	C-TYPE 1L1 LUG TERMINAL STRIP	
105	4-333-125-00	KNOB, CONTROL		112	8-729-286-90	TRANSISTOR 2SD869	(KV-146R)
106	4-333-157-00	RETAINER, AC CORD		113	8-729-287-00	TRANSISTOR 2SD870	(KV-146R)
107	▲:4-333-623-00	CASE, SHIELD, FBT		114	8-729-383-03	TRANSISTOR MN8303	

## NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- As to the part numbered with E-, refer to the electrical parts list.
- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

## SECTION 7 ELECTRICAL PARTS LIST

**N A**

**KV-1746R**

Ref.No	Part No	Description	Remark	Ref.No	Part No	Description	Remark
	•:1-603-976-00	N BOARD *****		C209	1-102-121-00	CERAMIC	0.0022MF 10% 50V
	1-232-004-00	COMPOSITION CIRCUIT BLOCK		C211	1-108-389-00	MYLAR	0.1MF 10% 100V
		<u>CAPACITOR</u>		C212	1-123-353-00	ELECT	2.2MF 20% 50V
C1	1-123-617-00	ELECT	10MF 20% 16V	C213	1-108-386-00	MYLAR	0.056MF 10% 100V
C2	1-123-617-00	ELECT	10MF 20% 16V	C215	1-102-503-00	CERAMIC	3PF 0.25PF 50V
C3	1-123-617-00	ELECT	10MF 20% 16V	C216	1-102-503-00	CERAMIC	3PF 0.25PF 50V
C4	1-161-019-00	CERAMIC	0.033MF 10% 25V	C217	1-102-963-00	CERAMIC	33PF 5% 50V
C5	1-108-567-00	MYLAR	0.0033MF 5% 50V	C218	1-161-282-00	CERAMIC	18PF 5% 50V
		<u>DIODE</u>		C219	1-102-121-00	CERAMIC	0.0022MF 10% 50V
D1	8-719-100-33	DIODE PH302A		C220	1-102-074-00	CERAMIC	0.001MF 10% 50V
		<u>IC</u>		C221	1-123-356-00	ELECT	10MF 20% 16V
IC1	8-759-113-73	IC UPC1373H		C222	1-102-121-00	CERAMIC	0.0022MF 10% 50V
		<u>COIL</u>		C225	1-101-006-00	CERAMIC	0.047MF 50V
L1	1-404-310-00	COIL		C226	1-161-294-00	CERAMIC	12PF 5% 50V
		*****		C228	1-123-352-00	ELECT	1MF 20% 50V
•:A-1295-473-A	A BOARD, COMPLETE *****			C229	1-102-129-00	CERAMIC	0.01MF 10% 50V
				C230	1-102-114-00	CERAMIC	470PF 10% 50V
				C231	1-108-379-00	MYLAR	0.015MF 10% 100V
				C232	1-123-351-00	ELECT	0.47MF 20% 50V
				C233	1-123-323-00	ELECT	470MF 20% 16V
				C234	1-123-356-00	ELECT	10MF 20% 16V
				C235	1-123-351-00	ELECT	0.47MF 20% 50V
				C236	1-102-820-00	CERAMIC	330PF 5% 50V
				C237	1-102-244-00	CERAMIC	220PF 10% 500V
				C238	1-123-026-00	ELECT	2.2MF 160V
		*****		C239	1-123-352-00	ELECT	1MF 20% 50V
	•:1-508-915-11	PLUG, 1P		C240	1-102-496-00	CERAMIC	82PF 5% 50V
	•:1-509-832-00	CONNECTOR ASSY, 1P		C241	1-102-518-00	CERAMIC	33PF 5% 50V
	•:1-509-887-00	CONNECTOR ASSY 1P		C242	1-102-494-00	CERAMIC	68PF 5% 50V
	1-517-072-00	LAMP HOLDER		C243	1-123-381-00	ELECT	2.2MF 20% 100V
	•:1-533-146-00	HOLDER, FUSE		C245	1-161-279-00	CERAMIC	10PF 5% 50V
	•:1-555-020-00	CONNECTOR ASSY, MINIATURE 3P		C246	1-102-129-00	CERAMIC	0.01MF 10% 50V
	•:4-334-250-00	CASE, SHIELD (MAIN)		C247	1-108-369-00	MYLAR	0.0022MF 10% 100V
	•:4-334-251-00	LID, UPPER, SHIELD CASE		C249	1-123-319-00	ELECT	47MF 20% 16V
	•:4-334-252-00	LID, REAR, SHIELD CASE		C250	1-101-845-00	CERAMIC	0.001MF 500V
	•:4-342-401-00	HEAT SHINK, V OUT		C251	1-102-074-00	CERAMIC	0.001MF 10% 50V
		<u>CONNECTOR</u>		C302	1-161-271-00	CERAMIC	100PF 5% 50V
A1	•:1-506-348-XX	3P PLUG (L)		C303	1-161-272-00	CERAMIC	120PF 5% 50V
A2	•:1-508-765-00	3P PLUG (M)		C304	1-121-806-00	ELECT	10MF 16V
A3	•:1-508-786-00	2P PLUG (M)		C308	1-101-004-00	CERAMIC	0.01MF 50V
A5	•:1-506-371-00	2P PLUG (L)		C309	1-102-820-00	CERAMIC	330PF 5% 50V
A6	•:1-508-765-00	3P PLUG (M)		C310	1-123-351-00	ELECT	0.47MF 20% 50V
A7	•:1-508-766-00	4P PLUG (M)		C311	1-108-370-00	MYLAR	0.0027MF 10% 100V
A10	•:1-508-765-00	3P PLUG (M)		C312	1-123-586-00	ELECT	0.1MF 20% 50V
A14	•:1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P		C313	1-108-385-00	MYLAR	0.047MF 10% 100V
A15	•:1-560-128-00	PLUG, CONNECTOR (2.5MM PITCH)		C314	1-123-356-00	ELECT	10MF 20% 16V
A23	•:1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P		C315	1-123-354-00	ELECT	3.3MF 20% 50V
		<u>CAPACITOR</u>		C316	1-102-963-00	CERAMIC	33PF 5% 50V
C201	1-101-888-00	CERAMIC	68PF 5% 50V	C317	1-102-822-00	CERAMIC	390PF 5% 50V
C205	1-102-121-00	CERAMIC	0.0022MF 10% 50V	C318	1-123-447-00	ELECT	0.22MF 20% 50V
C206	1-102-121-00	CERAMIC	0.0022MF 10% 50V	C319	1-123-328-00	ELECT	4.7MF 20% 25V
C207	1-161-383-00	CERAMIC	0.0047MF 10% 50V	C320	1-123-447-00	ELECT	0.22MF 20% 50V
C208	1-102-121-00	CERAMIC	0.0022MF 10% 50V	C321	1-101-888-00	CERAMIC	68PF 5% 50V

NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

=>: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Items marked " • " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS  
MF :  $\mu\text{F}$ , PF :  $\mu\mu\text{F}$

RESISTORS  
All resistors are in ohms  
F : nonflammable

COILS  
MH : mH, UH :  $\mu\text{H}$

A

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Ref.No	Part No	Description		Remark	Ref.No	Part No	Description		Remark		
C323	1-102-947-00	CERAMIC	10PF	5%	50V	C551	1-108-632-11	MYLAR	0.033	10%	100V
C324	1-102-959-00	CERAMIC	22PF	5%	50V	C553	1-102-030-00	CERAMIC	330PF	10%	500V
C326	1-123-321-00	ELECT	220MF	20%	16V	C554	1-123-351-00	ELECT	0.47MF	20%	50V
C327	1-161-271-00	CERAMIC	100PF	5%	50V	C555	1-123-344-00	ELECT	47MF	20%	35V
C328	1-161-316-00	CERAMIC	270PF	10%	50V	C556	1-123-351-00	ELECT	0.47MF	20%	50V
C329	1-123-356-00	ELECT	10MF	20%	16V	C558	1-123-354-00	ELECT	3.3MF	20%	50V
C330	1-102-947-00	CERAMIC	10PF	5%	50V	C559	1-102-212-00	CERAMIC	820PF	10%	500V
C331	1-102-947-00	CERAMIC	10PF	5%	50V	C560	1-102-129-00	CERAMIC	0.01MF	10%	50V
C501	1-123-352-00	ELECT	1MF	20%	50V	C561	1-102-074-00	CERAMIC	0.001MF	10%	50V
C502	1-161-003-00	CERAMIC	0.0015MF	10%	25V	C575	1-123-328-00	ELECT	4.7MF	20%	25V
C505	1-123-354-00	ELECT	3.3MF	20%	50V	C576	1-123-351-00	ELECT	0.47MF	20%	50V
C506	1-108-625-00	MYLAR	0.0082	10%	100V	C577	1-108-387-00	MYLAR	0.068MF	10%	100V
C507	1-161-063-00	CERAMIC	0.1MF	10%	50V	C578	1-123-352-00	ELECT	1MF	20%	50V
C508	1-130-203-00	FILM	0.01MF	5%	50V	C601	A.1-108-745-00	MYLAR	0.22MF	20%	125V
C509	1-108-373-00	MYLAR	0.0047MF	10%	100V	C605	1-125-215-00	ELECT(BLOCK)	560MF	200V	
C510	1-161-018-00	CERAMIC	0.027MF	10%	25V	C606	1-123-355-00	ELECT	4.7MF	20%	50V
C511	1-123-353-00	ELECT	2.2MF	20%	50V	C607	1-121-246-00	ELECT	4.7MF		160V
C512	1-123-351-00	ELECT	0.47MF	20%	50V	C608	1-102-030-00	CERAMIC	330PF	10%	500V
C514	1-123-356-00	ELECT	10MF	20%	16V	C609	1-123-026-00	ELECT	2.2MF		160V
C515	1-161-383-00	CERAMIC	0.0047MF	10%	50V						
										<u>FILTER</u>	
C516	1-102-820-00	CERAMIC	330PF	5%	50V	CF201	1-527-260-00	FILTER, CERAMIC	(4.5MHZ)		
C517	1-102-030-00	CERAMIC	330PF	10%	500V	CF202	1-409-332-00	CERAMIC TRAP	(4.5MHZ)		
C518	1-108-689-11	MYLAR	0.0056MF	10%	200V						
C519	1-121-757-00	ELECT	33MF		160V						
C520	1-123-344-00	ELECT	47MF	20%	35V						<u>TRIMMER</u>
C521	1-123-356-00	ELECT	10MF	20%	16V	CV301	1-141-212-00	CAP, TRIMMER			
C522	1-108-618-11	MYLAR	0.0022	10%	100V						<u>DIODE</u>
C523	1-108-384-00	MYLAR	0.039MF	10%	100V	D202	8-719-113-25	DIODE	RD13E-B2Z		
C524	1-131-361-00	TANTALUM	2.2MF	20%	20V	D203	=>8-719-911-19	DIODE	ISS119		
C525	1-123-323-00	ELECT	470MF	20%	16V	D204	=>8-719-911-19	DIODE	ISS119		
C526	1-131-197-00	TANTALUM	3.3MF	10%	16V	D301	=>8-719-900-93	DIODE	V09C		
C527	1-108-626-11	MYLAR	0.01	10%	100V	D501	=>8-719-911-19	DIODE	ISS119		
C528	1-108-626-11	MYLAR	0.01	10%	100V	D502	=>8-719-156-25	DIODE	RD5.6E-B2Z		
C529	1-123-344-00	ELECT	47MF	20%	35V	D505	=>8-719-911-55	DIODE	U05G		
C530	1-102-228-00	CERAMIC	470PF	10%	500V	D506	=>8-719-900-93	DIODE	V09C		
C531	1-123-587-00	ELECT	560MF	10%	25V	D507	=>8-719-911-55	DIODE	U05G		
C532	1-123-584-00	ELECT	22MF	10%	16V	D508	=>8-719-911-55	DIODE	U05G		
C533	1-123-330-00	ELECT	22MF	20%	25V	D509	8-719-305-15	DIODE	GH3F		
C534	1-123-003-00	ELECT	1MF		250V	D510	8-719-305-15	DIODE	GH3F		
C535	1-130-100-00	FILM	0.27MF	5%	400V	D511	A.8-719-901-95	DIODE	V19CSS		
C536	1-102-212-00	CERAMIC	820PF	10%	500V	D512	=>8-719-300-76	DIODE	RH1A		
C537	1-123-357-00	ELECT	22MF	20%	50V	D513	8-719-903-09	DIODE	V30N		
C538	1-123-447-00	ELECT	0.22MF	20%	50V	D514	8-719-903-09	DIODE	V30N		
C539	1-123-346-00	ELECT	220MF	20%	35V	D515	=>8-719-931-24	DIODE	EQB01-24		
C540	1-102-212-00	CERAMIC	820PF	10%	500V	D601	=>8-719-911-55	DIODE	U05G		
C541	1-102-212-00	CERAMIC	820PF	10%	500V	D602	=>8-719-911-55	DIODE	U05G		
C542	1-123-335-00	ELECT	330MF	20%	25V	D603	=>8-719-911-55	DIODE	U05G		
C544	1-123-385-00	ELECT	22MF	20%	100V	D604	=>8-719-911-55	DIODE	U05G		
C545	A.1-130-227-00	FILM	7500PF	3%	1.2KV						
C546	A.1-108-961-00	MYLAR	0.15MF	10%	200V						
C548	1-102-223-00	CERAMIC	0.0047MF	20%	1.6KV						<u>DELAY LINE</u>
C549	1-121-246-00	ELECT	4.7MF		160V	DL301	1-415-200-00	DELAY LINE			
C550	1-102-973-00	CERAMIC	100PF	5%	50V						

**NOTE:**

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

- => Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.
  - Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

- MF :  $\mu\text{F}$ , PF :

• MF : μF, PF : μ

#### RESISTORS

- COILS

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<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>
<u>CONNECTOR</u>							
DY1	▲:1-506-348-XX	3P PLUG (L)		Q301	8-729-663-47	TRANSISTOR 2SC1364	
DY2	▲:1-506-348-XX	3P PLUG (L)		Q502	8-729-326-10	TRANSISTOR 2SC2610BK	
<u>FUSE</u>							
F601	▲1-532-272-XX	FUSE 5A		Q503	8-729-177-43	TRANSISTOR 2SD774	
F602	▲1-532-570-00	FUSE, GLASS TUBE 1.25A		Q505	8-729-663-47	TRANSISTOR 2SC1364	
				Q506	=>8-729-117-54	TRANSISTOR 2SA1175	
<u>IC</u>							
IC201	8-759-600-05	IC CX-555A		R200	1-246-521-00	CARBON 100K 5% 1/4W	
IC202	8-759-600-43	IC CX-843A		R201	1-246-431-00	CARBON 18 5% 1/4W	
IC301	8-759-105-56	IC CX-556		R203	1-246-422-00	CARBON 7.5 5% 1/4W	
IC501	8-759-100-07	IC CX-557S		R208	1-246-481-00	CARBON 2.2K 5% 1/4W	
IC502	8-759-113-58	IC UPC1358H		R209	1-246-497-00	CARBON 10K 5% 1/4W	
IC601	▲1-231-705-00	MODULE, POWER		R210	1-246-463-00	CARBON 390 5% 1/4W	
				R211	1-246-469-00	CARBON 680 5% 1/4W	
				R212	1-211-602-00	CARBON 33 5% 1/2W F	
<u>JACK</u>							
J201	▲1-526-575-00	SOCKET, PLUG		R214	1-246-457-00	CARBON 220 5% 1/4W	
<u>COIL</u>							
L201	1-407-694-00	MICRO INDUCTOR 12UH		R215	1-246-461-00	CARBON 330 5% 1/4W	
L202	1-407-687-00	MICRO INDUCTOR 3.3UH		R216	1-246-483-00	CARBON 2.7K 5% 1/4W	
L203	1-407-189-XX	MICRO INDUCTOR 8.2UH		R217	1-246-519-00	CARBON 82K 5% 1/4W	
L204	1-425-613-00	COIL, AIR-CORE, QF TYPE		R218	1-246-473-00	CARBON 1K 5% 1/4W	
L205	1-407-701-00	MICRO INDUCTOR 47UH		R220	1-246-517-00	CARBON 68K 5% 1/4W	
L302	1-407-699-00	MICRO INDUCTOR 33UH		R221	1-246-469-00	CARBON 680 5% 1/4W	
L303	1-408-163-00	MICRO INDUCTOR 5.6MMH		R222	1-246-473-00	CARBON 1K 5% 1/4W	
L304	1-407-166-XX	MICRO INDUCTOR 56UH		R223	1-246-473-00	CARBON 1K 5% 1/4W	
L305	1-407-698-00	MICRO INDUCTOR 27UH		R226	1-246-481-00	CARBON 2.2K 5% 1/4W	
L501	1-407-693-00	MICRO INDUCTOR 10UH		R227	1-246-507-00	CARBON 27K 5% 1/4W	
L502	▲1-459-350-00	COIL, FERRITE (HLC)		R228	1-246-483-00	CARBON 2.7K 5% 1/4W	
L503	▲1-459-349-00	COIL, VAR, FERRITE (HWC)		R229	1-246-473-00	CARBON 1K 5% 1/4W	
L504	1-407-501-31	MICRO INDUCTOR 5.6MMH		R230	1-246-522-00	CARBON 110K 5% 1/4W	
L505	1-407-699-00	MICRO INDUCTOR 33UH		R231	1-246-497-00	CARBON 10K 5% 1/4W	
L506	▲1-408-226-00	MICRO INDUCTOR 82UH		R232	1-212-897-00	FUSIBLE 470 5% 1/4W F	
L508	1-407-202-XX	MICRO INDUCTOR 4.7MMH		R233	1-246-449-00	CARBON 100 5% 1/4W	
L509	▲1-408-300-00	MICRO INDUCTOR 6.8UH		R234	1-246-459-00	CARBON 270 5% 1/4W	
L514	1-407-494-00	MICRO INDUCTOR 1.5MMH		R235	1-246-451-00	CARBON 120 5% 1/4W	
L601	▲1-408-225-00	MICRO INDUCTOR 3.3UH		R236	1-246-481-00	CARBON 2.2K 5% 1/4W	
L602	▲1-408-225-00	MICRO INDUCTOR 3.3UH		R237	1-211-421-00	CARBON 39 5% 1/8W F	
<u>NEON LAMP</u>							
NL501	1-519-108-XX	LAMP, NEON ASSY		R239	1-246-489-00	CARBON 4.7K 5% 1/4W	
NL601	1-519-108-XX	LAMP, NEON ASSY		R240	1-246-485-00	CARBON 3.3K 5% 1/4W	
<u>TRANSISTOR</u>							
Q202	8-729-663-47	TRANSISTOR 2SC1364		R241	1-246-489-00	CARBON 4.7K 5% 1/4W	
Q203	=>8-729-316-16	TRANSISTOR 2SC1061		R243	1-212-375-00	METAL 18 5% 1W F	
Q204	8-729-309-06	TRANSISTOR 2SC1890A		R245	1-246-521-00	CARBON 100K 5% 1/4W	
Q205	8-729-306-92	TRANSISTOR 2SD669A		R246	1-211-602-00	CARBON 33 5% 1/2W F	
Q206	8-729-304-92	TRANSISTOR 2SB649A		R247	1-246-473-00	CARBON 1K 5% 1/4W	
				R249	1-246-473-00	CARBON 1K 5% 1/4W	
				R250	1-246-473-00	CARBON 1K 5% 1/4W	
				R301	1-246-477-00	CARBON 1.5K 5% 1/4W	
				R302	1-246-479-00	CARBON 1.8K 5% 1/4W	
				R306	1-246-483-00	CARBON 2.7K 5% 1/4W	
				R307	1-246-443-00	CARBON 56 5% 1/4W	
				R309	1-246-491-00	CARBON 5.6K 5% 1/4W	
				R310	1-246-469-00	CARBON 680 5% 1/4W	

## NOTE:

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

- => Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.
- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS  
• MF :  $\mu$ F, PF :  $\mu\mu$ F

RESISTORS  
• All resistors are in ohms  
• F : nonflammable

COILS  
• MMH : mH, UH :  $\mu$ H

A

## KV-1746R

- The components identified by  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Ref.No	Part No	Description	Remark	Ref.No	Part No	Description	Remark
R311	1-246-505-00	CARBON	22K 5% 1/4W	R544	1-246-481-00	CARBON	2.2K 5% 1/4W
R312	1-246-473-00	CARBON	1K 5% 1/4W	R545	1-244-849-00	CARBON	100 5% 1/2W
R313	1-246-498-00	CARBON	11K 5% 1/4W	R546	1-247-009-00	CARBON	470 5% 1/4W F
R314	1-246-506-00	CARBON	24K 5% 1/4W	R547	1-246-491-00	CARBON	5.6K 5% 1/4W
R315	1-246-473-00	CARBON	1K 5% 1/4W	R548	1-211-417-00	CARBON	22 5% 1/8W F
R316	1-246-477-00	CARBON	1.5K 5% 1/4W	R549	1-246-483-00	CARBON	2.7K 5% 1/4W
R317	1-246-461-00	CARBON	330 5% 1/4W	R550	1-206-705-00	METAL	150 5% 3W F
R318	1-246-461-00	CARBON	330 5% 1/4W	R551	1-247-015-00	CARBON	2.2K 5% 1/4W F
R320	1-246-469-00	CARBON	680 5% 1/4W	R552	1-246-513-00	CARBON	47K 5% 1/4W
R321	1-246-461-00	CARBON	330 5% 1/4W	R553	1-246-490-00	CARBON	5.1K 5% 1/4W
R323	1-246-495-00	CARBON	8.2K 5% 1/4W	R554	1-212-361-00	METAL	1.2 5% 1W F
R326	1-246-457-00	CARBON	220 5% 1/4W	R555	1-213-146-00	METAL	1.8K 5% 1W F
R327	1-246-479-00	CARBON	1.8K 5% 1/4W	R556A	1-214-908-00	METAL	62K 1% 1/2W
R328	1-246-477-00	CARBON	1.5K 5% 1/4W	R557	1-246-491-00	CARBON	5.6K 5% 1/4W
R331	1-246-487-00	CARBON	3.9K 5% 1/4W	R558	1-244-897-00	CARBON	10K 5% 1/2W
R332	1-246-449-00	CARBON	100 5% 1/4W	R559	1-246-475-00	CARBON	1.2K 5% 1/4W
R333	1-246-467-00	CARBON	560 5% 1/4W	R560	1-206-678-00	METAL	3.9K 5% 2W F
R501	1-246-453-00	CARBON	150 5% 1/4W	R561	1-213-140-00	METAL	560 5% 1W F
R502	1-246-537-00	CARBON	470K 5% 1/4W	R562	1-212-356-00	METAL	0.47 5% 1W F
R506	1-246-511-00	CARBON	39K 5% 1/4W	<input checked="" type="checkbox"/> R563 A.		CARBON	1/4W
R507	1-246-518-00	CARBON	75K 5% 1/4W	R570	1-246-461-00	CARBON	330 5% 1/4W
R508	1-246-509-00	CARBON	33K 5% 1/4W	R575	1-246-491-00	CARBON	5.6K 5% 1/4W
R509	1-246-523-00	CARBON	120K 5% 1/4W	R576	1-246-465-00	CARBON	470 5% 1/4W
R510	1-246-487-00	CARBON	3.9K 5% 1/4W	R577	1-246-533-00	CARBON	330K 5% 1/4W
R511	1-246-504-00	CARBON	20K 5% 1/4W	R578	1-246-513-00	CARBON	47K 5% 1/4W
R512	1-246-481-00	CARBON	2.2K 5% 1/4W	R579	1-246-475-00	CARBON	1.2K 5% 1/4W
R514	1-246-507-00	CARBON	27K 5% 1/4W	R581	1-246-485-00	CARBON	3.3K 5% 1/4W
R515	1-246-489-00	CARBON	4.7K 5% 1/4W	R583	1-246-529-00	CARBON	220K 5% 1/4W
R516	1-246-479-00	CARBON	1.8K 5% 1/4W	R584	1-246-481-00	CARBON	2.2K 5% 1/4W
R517	1-246-453-00	CARBON	150 5% 1/4W	R585	1-211-933-00	CARBON	47 5% 1/8W F
R518	1-246-481-00	CARBON	2.2K 5% 1/4W F	R602 A. 1-202-719-00	COMPOSITION	1M 10%	1/2W
R520	1-206-679-00	METAL	4.3K 5% 2W	R603	1-213-163-00	METAL	47K 5% 1W F
R521	1-246-467-00	CARBON	560 5% 1/4W	R605	1-246-991-00	CARBON	150 5% 1/8W F
R523A	1-246-453-00	CARBON	150 5% 1/4W	<input checked="" type="checkbox"/> R606 A. 1-213-156-00	METAL	12K 5% 1W F	
R524	1-246-493-00	CARBON	6.8K 5% 1/4W	<input checked="" type="checkbox"/> R607 A. 1-244-890-00	CARBON	5.1K 5% 1/2W	
R525	1-246-495-00	CARBON	8.2K 5% 1/4W	R608	1-247-037-00	CARBON	390 5% 1/8W F
R526	1-246-506-00	CARBON	24K 5% 1/4W	<input checked="" type="checkbox"/> R609 A. 1-213-163-00	METAL	47K 5% 1W F	
R527	1-246-457-00	CARBON	220 5% 1/4W	R610	1-246-528-00	CARBON	200K 5% 1/4W
R528	1-214-152-00	METAL	6.8K 1% 1/4W	<u>VARIABLE RESISTOR</u>			
R529	1-214-158-00	METAL	12K 1% 1/4W	RV201	1-224-644-XX	RES, ADJ, CARBON	4.7K
R530	1-246-501-00	CARBON	15K 5% 1/4W	RV202	1-224-644-XX	RES, ADJ, CARBON	4.7K
R531	1-246-513-00	CARBON	47K 5% 1/4W	RV301A	1-226-078-00	RES, VAR, CARBON (SNAP IN)	10K
R532	1-246-497-00	CARBON	10K 5% 1/4W	RV303	1-226-408-00	RES, VAR, CARBON (SNAP IN)	500
R533	1-246-489-00	CARBON	4.7K 5% 1/4W	RV304	1-224-644-XX	RES, ADJ, CARBON	4.7K
R535	1-244-863-00	CARBON	390 5% 1/2W	RV305	1-226-075-00	RES, VAR, CARBON (SNAP IN)	10K
R536	1-246-465-00	CARBON	470 5% 1/4W F	RV306	1-226-075-00	RES, VAR, CARBON (SNAP IN)	10K
R537	1-212-361-00	METAL	1.2 5% 1W	RV307	1-224-552-00	RES, ADJ, CARBON	470K
R538	1-246-475-00	CARBON	1.2K 5% 1/4W	RV308	1-224-641-XX	RES, ADJ, CARBON	470
R539	1-246-475-00	CARBON	1.2K 5% 1/4W	RV501	1-226-819-00	RES, ADJ, METAL GLAZE	1K
R540	1-246-505-00	CARBON	22K 5% 1/4W	RV502	1-224-967-00	RES, ADJ, CARBON	22K
R541	1-246-481-00	CARBON	2.2K 5% 1/4W	RV503A	1-226-077-00	RES, VAR, CARBON (SNAP IN)	5K
R542	1-246-996-00	CARBON	2.2K 5% 1/8W F	RV504	1-224-644-XX	RES, ADJ, CARBON	4.7K
R543B	1-246-443-00	CARBON	56 5% 1/4W				

## NOTE:

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

=> Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

\* Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS  
• MF :  $\mu\text{F}$ , PF :  $\mu\mu\text{F}$

RESISTORS  
• All resistors are in ohms  
• F : nonflammable

COILS  
• MMH : mH, UH :  $\mu\text{H}$

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<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>				
<u>SWITCH</u>											
S301	1-553-176-00	SWITCH, ROTARY		NL2225	1-519-154-00	LAMP, NEON					
<u>SPARK GAP</u>											
SG501	1-519-063-XX	DISCHARGING GAP		NL2226	1-519-130-51	LAMP, NEON					
<u>TRANSFORMER</u>											
T201	1-409-319-00	COIL, TRAP		S2206	1-553-685-00	SWITCH, PUSH					
T202	1-409-318-00	COIL, TRAP		S2207	1-553-685-00	SWITCH, PUSH					
T203	1-404-181-00	COIL, VIF		S2208	1-553-685-00	SWITCH, PUSH					
T204	1-404-182-00	COIL, VIF		S2209	1-553-685-00	SWITCH, PUSH					
T205	1-404-181-00	COIL, VIF		S2210	1-553-685-00	SWITCH, PUSH					
T206	1-403-367-00	COIL, SIF		S2211	1-552-437-00	SWITCH, LEVER					
T207	1-403-871-00	SIFT-2 COIL		S2212	1-552-774-00	SWITCH, PUSH					
T208	1-404-179-00	FILTER, HELICAL		S2213	1-552-774-00	SWITCH, PUSH					
T209 $\Delta$	1-427-437-00	TRANSFORMER, OUTPUT		S2214	1-552-774-00	SWITCH, PUSH					
T301	1-425-995-00	TRANSFORMER, INPUT		S2215	1-552-774-00	SWITCH, PUSH					
T302	1-409-193-00	COIL 3.58MHZ TRAP		S2216	1-552-774-00	SWITCH, PUSH					
T501	1-437-090-00	HDT		S2217	1-552-774-00	SWITCH, PUSH					
T502 $\Delta$	1-421-451-00	H. PCT		S2218	1-552-774-00	SWITCH, PUSH					
T503 $\Delta$	1-439-254-00	TRANSFORMER ASSY, FLYBACK		S2219	1-552-774-00	SWITCH, PUSH					
T601 $\Delta$	1-421-357-00	TRANSFORMER, LINE FILTER		S2220	1-552-774-00	SWITCH, PUSH					
<u>TERMISTOR</u>											
THP601 $\Delta$	1-800-686-00	THERMISTOR		***** ***** *****							
<u>CRYSTAL</u>											
X301	1-527-396-00	CRYSTAL, OSC		•:1-604-594-00 M1 BOARD *****							
***** *****											
•:1-604-593-00 M BOARD *****											
<u>DIODE</u>											
D2209	8-719-815-55	DIODE 1S1555		C2201	1-123-353-00	ELECT	2.2MF 20% 50V				
D2210	8-719-815-55	DIODE 1S1555		C2202	1-123-352-00	ELECT	1MF 20% 50V				
<u>NEON LAMP</u>											
NL2212	1-519-154-00	LAMP, NEON		<u>DIODE</u>							
NL2213	1-519-154-00	LAMP, NEON		D2201	8-719-925-26	DIODE SLP252B-06					
NL2214	1-519-154-00	LAMP, NEON		D2206	8-719-812-41	DIODE TLR124					
NL2215	1-519-154-00	LAMP, NEON		D2207	8-719-812-42	DIODE TLY124					
NL2216	1-519-154-00	LAMP, NEON		D2208	8-719-812-43	DIODE TLG124					
<u>IC</u>											
IC2201	8-759-619-03	IC M51903L		<u>IC</u>							
<u>RESISTOR</u>											
R2200	1-246-497-00	CARBON	10K 5% 1/4W	<u>RESISTOR</u>							
R2201	1-246-469-00	CARBON	680 5% 1/4W	• All resistors are in ohms							
R2202	1-246-469-00	CARBON	680 5% 1/4W	• MMH : mH, UH : $\mu$ H							
R2203	1-246-469-00	CARBON	680 5% 1/4W	• MF : $\mu$ F, PF : $\mu$ $\mu$ F							
R2204	1-246-469-00	CARBON	680 5% 1/4W	• F : nonflammable							
R2205	1-246-469-00	CARBON	680 5% 1/4W	• =>: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.							
NOTE:											
<p>The components identified by shading and mark <math>\Delta</math> are critical for safety. Replace only with part number specified.</p>											
<p>• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.</p>											
<p>CAPACITORS</p>											
<p>RESISTORS</p>											
<p>COILS</p>											

• Items marked "•" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS

• MF :  $\mu$ F, PF :  $\mu$  $\mu$ F

RESISTORS

• All resistors are in ohms

• F : nonflammable

COILS

• MMH : mH, UH :  $\mu$ H

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Ref.No	Part No	Description	Remark	Ref.No	Part No	Description	Remark
R2206	1-246-449-00	CARBON	100 5% 1/4W	C053	1-102-129-00	CERAMIC	0.01MF 10% 50V
R2207	1-246-485-00	CARBON	3.3K 5% 1/4W	C054	1-108-421-00	MYLAR	0.01MF 10% 200V
		<u>SWITCH</u>		C056	1-108-421-00	MYLAR	0.01MF 10% 200V
S2201	1-552-656-00	SWITCH, SLIDE		C058	1-123-333-00	ELECT	100MF 20% 16V
S2202	1-552-656-00	SWITCH, SLIDE		C059	1-102-129-00	CERAMIC	0.01MF 10% 50V
S2203	1-553-685-00	SWITCH, PUSH		C061	1-123-356-00	ELECT	10MF 20% 16V
S2204	1-553-685-00	SWITCH, PUSH		C062	1-123-333-00	ELECT	100MF 20% 16V
S2205	1-553-685-00	SWITCH, PUSH		C063	1-161-269-00	CERAMIC	68PF 5% 50V
				C064	1-161-271-00	CERAMIC	100PF 5% 50V
				C065	1-161-317-00	CERAMIC	330PF 10% 50V
*****							
<b>A-1306-121-A ME BOARD COMPLETE</b>				C142	1-101-004-00	CERAMIC	0.01MF 50V
<u>COMPOSITION</u>							
<b>▲:4-334-254-00 CASE (MAIN), SHIELD, M2</b>				CP001	1-231-569-00	COMPOSITION CIRCUIT BLOCK	
<b>▲:4-334-255-00 LID, UPPER, M2 SHIELD CASE</b>				CP002	1-231-683-00	COMPOSITION CIRCUIT BLOCK	
<b>▲:4-334-256-00 LID, REAR, M2 SHIELD CASE</b>				CP003	1-231-618-00	COMPOSITION CIRCUIT BLOCK	
<u>CAPACITOR</u>							
C001	1-161-272-00	CERAMIC	120PF 5% 50V	D002	=>8-719-911-19	DIODE ISS119	
C002	1-123-352-00	ELECT	1MF 20% 50V	D006	=>8-719-930-12	DIODE EQB01-12Z	
C003	1-123-352-00	ELECT	1MF 20% 50V	D007	=>8-719-911-55	DIODE U05G	
C004	1-161-319-00	CERAMIC	470PF 10% 50V	D008	8-719-900-93	DIODE V09C	
C006	1-161-323-00	CERAMIC	0.001MF 10% 50V	D009	8-719-100-24	DIODE RD4.3EB3	
C007	1-123-333-00	ELECT	100MF 20% 16V	D010	=>8-719-911-19	DIODE ISS119	
C009	1-161-315-00	CERAMIC	220PF 10% 50V	D011	=>8-719-911-19	DIODE ISS119	
C010	1-161-315-00	CERAMIC	220PF 10% 50V	D013	=>8-719-911-19	DIODE ISS119	
C011	1-161-315-00	CERAMIC	220PF 10% 50V	D030	=>8-719-911-19	DIODE ISS119	
C012	1-161-315-00	CERAMIC	220PF 10% 50V	D033	=>8-719-911-19	DIODE ISS119	
C013	1-161-315-00	CERAMIC	220PF 10% 50V	D034	=>8-719-911-19	DIODE ISS119	
C014	1-123-254-00	ELECT	10MF 250V	D035	=>8-719-911-19	DIODE ISS119	
C015	1-102-189-00	CERAMIC	0.0047MF	D038	=>8-719-911-19	DIODE ISS119	
C015	1-161-748-00	CERAMIC	0.0047MF	D039	8-719-191-26	DIODE RD9.1E-B3Z	
C016	1-123-356-00	ELECT	10MF 20% 16V	<u>IC</u>			
C017	1-161-319-00	CERAMIC	470PF 10% 50V	IC001	=>8-759-150-24	IC UPD652C024	
C018	1-123-351-00	ELECT	0.47MF 20% 50V	IC031	8-759-157-40	IC UPC574J	
C031	1-123-355-00	ELECT	4.7MF 20% 50V	IC032	8-757-604-00	IC CX-760D	
C032	1-161-327-00	CERAMIC	0.0033MF 30% 50V	IC033	8-758-040-00	IC CX-804	
C033	1-123-355-00	ELECT	4.7MF 20% 50V	IC034	8-757-611-00	IC CX-761A	
C034	1-161-267-00	CERAMIC	47PF 5% 50V	<u>COIL</u>			
C035	1-108-389-00	MYLAR	0.1MF 10% 100V	L031	1-408-247-00	MICRO INDUCTOR 33MMH	
C036	1-161-270-00	CERAMIC	82PF 5% 50V	L032	1-409-193-00	COIL 3.58MHZ TRAP	
C038	1-130-020-00	FILM	0.0015MF 5% 50V	L033	1-407-705-00	MICRO INDUCTOR 100UH	
C039	1-130-018-00	FILM	0.001MF 5% 50V	L034	1-407-687-00	MICRO INDUCTOR 3.3UH	
C040	1-130-018-00	FILM	0.001MF 5% 50V	L035	1-407-705-00	MICRO INDUCTOR 100UH	
C041	1-161-271-00	CERAMIC	100PF 5% 50V	L036	1-408-398-00	MICRO INDUCTOR 1.2UH	
C043	1-123-352-00	ELECT	1MF 20% 50V	L037	1-408-398-00	MICRO INDUCTOR 1.2UH	
C044	1-108-393-00	MYLAR	0.22MF 10% 100V	L039	1-408-454-11	MICRO INDUCTOR 100UH	
C045	1-123-356-00	ELECT	10MF 20% 16V	L040	1-408-454-11	MICRO INDUCTOR 100UH	
C046	1-108-377-00	MYLAR	0.01MF 10% 100V	<u>RESISTORS</u>			
C047	1-161-271-00	CERAMIC	100PF 5% 50V	• MF : μF, PF : μμF	• All resistors are in ohms	• MMH : mH, UH : μH	
C049	1-123-318-00	ELECT	33MF 20% 16V	• F : nonflammable			
C050	1-123-318-00	ELECT	33MF 20% 16V				
C052	1-108-421-00	MYLAR	0.01MF 10% 200V				

NOTE:

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- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

- CAPACITORS
- RESISTORS
- COILS
- MF : μF, PF : μμF
- All resistors are in ohms
- MMH : mH, UH : μH
- F : nonflammable

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<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>			<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>			<u>Remark</u>
<u>CONNECTOR</u>											
ME1	8:1-560-123-00	PLUG, CONNECTOR (2.5MM)	3P			R012	1-246-521-00	CARBON	100K	1%	1/4W
ME2	8:1-560-125-00	PLUG, CONNECTOR (2.5MM)	5P			R013	1-246-521-00	CARBON	100K	5%	1/4W
ME3	8:1-560-123-00	PLUG, CONNECTOR (2.5MM)	3P			R014	1-246-521-00	CARBON	100K	5%	1/4W
ME7	8:1-508-786-00	2P PLUG (M)				R015	1-246-528-00	CARBON	200K	5%	1/4W
ME8	8:1-560-126-00	PLUG, CONNECTOR (2.5MM)	6P			R016	1-246-528-00	CARBON	200K	5%	1/4W
ME9	8:1-560-124-00	PLUG, CONNECTOR (2.5MM)	4P			R017	1-246-528-00	CARBON	200K	5%	1/4W
ME12	8:1-560-127-00	PLUG, CONNECTOR (2.5MM)	7P			R018	1-246-528-00	CARBON	200K	5%	1/4W
ME13	8:1-560-129-00	PLUG, CONNECTOR (2.5MM)	9P			R019	1-246-528-00	CARBON	200K	1%	1/4W
<u>TRANSISTOR</u>											
Q001	=>8-729-117-54	TRANSISTOR	2SA1175			R022	1-246-528-00	CARBON	200K	5%	1/4W
Q002	8-729-663-47	TRANSISTOR	2SC1364			R023	1-246-528-00	CARBON	200K	1%	1/4W
Q003	=>8-729-117-54	TRANSISTOR	2SA1175			R024	1-246-528-00	CARBON	200K	1%	1/4W
Q004	8-729-663-47	TRANSISTOR	2SC1364			R025	1-246-490-00	CARBON	5.1K	5%	1/4W
Q005	8-729-663-47	TRANSISTOR	2SC1364			R026	1-246-521-00	CARBON	100K	1%	1/4W
Q006	8-729-663-47	TRANSISTOR	2SC1364			R027	1-246-521-00	CARBON	100K	1%	1/4W
Q007	8-729-663-47	TRANSISTOR	2SC1364			R028	1-246-521-00	CARBON	100K	5%	1/4W
Q008	8-729-663-47	TRANSISTOR	2SC1364			R029	1-246-521-00	CARBON	100K	5%	1/4W
Q009	8-729-173-37	TRANSISTOR	2SA733A			R030	1-246-528-00	CARBON	200K	5%	1/4W
Q031	8-729-663-47	TRANSISTOR	2SC1364			R031	1-246-509-00	CARBON	33K	5%	1/4W
Q032	8-729-663-47	TRANSISTOR	2SC1364			R032	1-246-487-00	CARBON	3.9K	5%	1/4W
Q033	=>8-729-117-54	TRANSISTOR	2SA1175			R033	1-246-485-00	CARBON	3.3K	5%	1/4W
Q034	8-729-663-47	TRANSISTOR	2SC1364			R034	1-246-485-00	CARBON	3.3K	5%	1/4W
Q035	=>8-729-117-54	TRANSISTOR	2SA1175			R035	1-246-459-00	CARBON	270	5%	1/4W
Q036	8-729-139-04	TRANSISTOR	2N3904			R036	1-246-481-00	CARBON	2.2K	5%	1/4W
Q038	=>8-729-117-54	TRANSISTOR	2SA1175			R037	1-246-497-00	CARBON	10K	5%	1/4W
Q039	=>8-729-117-54	TRANSISTOR	2SA1175			R038	1-246-497-00	CARBON	10K	5%	1/4W
Q040	=>8-729-117-54	TRANSISTOR	2SA1175			R039	1-246-497-00	CARBON	10K	5%	1/4W
Q041	8-729-663-47	TRANSISTOR	2SC1364			R040	1-246-481-00	CARBON	2.2K	5%	1/4W
Q043	8-729-663-47	TRANSISTOR	2SC1364			R042	1-246-497-00	CARBON	10K	5%	1/4W
Q044	8-729-663-47	TRANSISTOR	2SC1364			R043	1-246-485-00	CARBON	3.3K	5%	1/4W
Q045	=>8-729-117-54	TRANSISTOR	2SA1175			R044	1-246-521-00	CARBON	100K	5%	1/4W
Q047	8-729-663-47	TRANSISTOR	2SC1364			R045	1-246-533-00	CARBON	330K	5%	1/4W
Q048	8-729-663-47	TRANSISTOR	2SC1364			R046	1-246-509-00	CARBON	33K	5%	1/4W
Q050	8-729-309-06	TRANSISTOR	2SC1890A			R047	1-246-497-00	CARBON	10K	5%	1/4W
Q051	8-729-213-11	TRANSISTOR	2SC2230A			R048	1-246-505-00	CARBON	22K	5%	1/4W
Q052	8-729-663-47	TRANSISTOR	2SC1364			R049	1-246-497-00	CARBON	10K	5%	1/4W
Q053	8-729-663-47	TRANSISTOR	2SC1364			R050	1-246-497-00	CARBON	10K	5%	1/4W
Q054	8-729-663-47	TRANSISTOR	2SC1364			R051	1-206-696-00	METAL	22K	5%	2W
<u>RESISTOR</u>											
R001	1-246-532-00	CARBON	300K	5%	1/4W	R052	1-246-489-00	CARBON	4.7K	5%	1/4W
R002	1-246-531-00	CARBON	270K	5%	1/4W	R053	1-246-509-00	CARBON	33K	5%	1/4W
R003	1-246-493-00	CARBON	6.8K	5%	1/4W	R055	1-246-509-00	CARBON	33K	5%	1/4W
R004	1-246-490-00	CARBON	5.1K	5%	1/4W	R056	1-246-509-00	CARBON	33K	5%	1/4W
R005	1-246-532-00	CARBON	300K	5%	1/4W	R057	1-246-535-00	CARBON	390K	5%	1/4W
R006	1-246-521-00	CARBON	100K	5%	1/4W	R058	1-246-521-00	CARBON	100K	5%	1/4W
R007	1-246-521-00	CARBON	100K	5%	1/4W	R059	1-246-461-00	CARBON	330	5%	1/4W
R008	1-246-545-00	CARBON	1M	5%	1/4W	R060	1-246-489-00	CARBON	4.7K	5%	1/4W
R010	1-246-479-00	CARBON	1.8K	5%	1/4W	R061	1-246-489-00	CARBON	4.7K	5%	1/4W
R011	1-246-472-00	CARBON	910	5%	1/4W	R062	1-246-505-00	CARBON	22K	5%	1/4W
<u>RESISTOR</u>											
<u>CAPACITORS</u>											
• MF : $\mu$ F, PF : $\mu\mu$ F											
<u>RESISTORS</u>											
• All resistors are in ohms											
• F : nonflammable											
<u>COILS</u>											
• MMH : mH, UH : $\mu$ H											

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

- Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

• Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

**ME** **C**

**KV-1746R**

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>				<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>				<u>Remark</u>					
R067	1-246-481-00	CARBON	2.2K	5%	1/4W		R131	1-246-493-00	CARBON	6.8K	5%	1/4W						
R068	1-246-473-00	CARBON	1K	5%	1/4W		R132	1-246-504-00	CARBON	20K	5%	1/4W						
R069	1-246-481-00	CARBON	2.2K	5%	1/4W		R133	1-246-521-00	CARBON	100K	5%	1/4W						
R070	1-246-497-00	CARBON	10K	5%	1/4W		R134	1-246-488-00	CARBON	4.3K	5%	1/4W						
R071	1-246-505-00	CARBON	22K	5%	1/4W		R136	1-246-483-00	CARBON	2.7K	5%	1/4W						
R072	1-246-497-00	CARBON	10K	5%	1/4W		R145	1-246-521-00	CARBON	100K	5%	1/4W						
R073	1-246-473-00	CARBON	1K	5%	1/4W		R147	1-246-537-00	CARBON	470K	5%	1/4W						
R074	1-246-529-00	CARBON	220K	5%	1/4W		R148	1-246-519-00	CARBON	82K	5%	1/4W						
R075	1-246-497-00	CARBON	10K	5%	1/4W		R149	1-246-516-00	CARBON	62K	5%	1/4W						
R076	1-246-473-00	CARBON	1K	5%	1/4W		R150	1-246-521-00	CARBON	100K	5%	1/4W						
R077	1-246-497-00	CARBON	10K	5%	1/4W		R151	1-246-521-00	CARBON	100K	5%	1/4W						
R078	1-246-497-00	CARBON	10K	5%	1/4W		R152	1-246-537-00	CARBON	470K	5%	1/4W						
R079	1-246-497-00	CARBON	10K	5%	1/4W		R153	1-246-473-00	CARBON	1K	5%	1/4W						
R080	1-246-497-00	CARBON	10K	5%	1/4W		R154	1-246-473-00	CARBON	1K	5%	1/4W						
R081	1-246-497-00	CARBON	10K	5%	1/4W		R156	1-246-521-00	CARBON	100K	5%	1/4W						
R082	1-246-497-00	CARBON	10K	5%	1/4W		R160	1-246-509-00	CARBON	33K	5%	1/4W						
R083	1-246-519-00	CARBON	82K	5%	1/4W		R161	1-246-521-00	CARBON	100K	5%	1/4W						
R084	1-246-497-00	CARBON	10K	5%	1/4W		<u>RELAY</u>											
R085	1-214-596-00	METAL	39K	5%	2W	F	<u>CRYSTAL</u>											
R086	1-244-914-00	CARBON	51K	5%	1/2W		RL001 A 1-515-346-00 RELAY											
R087	1-246-529-00	CARBON	220K	5%	1/4W		X001 1-527-532-00 OSCILLATOR, CERAMIC											
R088	1-246-473-00	CARBON	1K	5%	1/4W		*****											
R089	1-246-473-00	CARBON	1K	5%	1/4W		●:A-1330-311-A C BOARD, COMPLETE											
R090	1-246-499-00	CARBON	12K	5%	1/4W		*****											
R094	1-246-507-00	CARBON	27K	5%	1/4W		1-526-645-00 SOCKET, PICTURE TUBE											
R095	1-246-519-00	CARBON	82K	5%	1/4W		●:1-602-721-21 PC BOARD, C											
R096	1-246-497-00	CARBON	10K	5%	1/4W		C1 ●:1-508-765-00 3P PLUG (M)											
R097	1-246-513-00	CARBON	47K	5%	1/4W		C2 ●:1-506-371-00 2P PLUG (L)											
R098	1-246-473-00	CARBON	1K	5%	1/4W		CONNECTOR											
R100	1-246-537-00	CARBON	470K	5%	1/4W		CAPACITOR											
R101	1-246-509-00	CARBON	33K	5%	1/4W		C701 1-123-356-00 ELECT											
R102	1-246-497-00	CARBON	10K	5%	1/4W		C702 1-129-737-00 FILM											
R103	1-246-481-00	CARBON	2.2K	5%	1/4W		C703 1-102-249-00 CERAMIC											
R104	1-246-509-00	CARBON	33K	5%	1/4W		C704 1-102-971-00 CERAMIC											
R105	1-246-509-00	CARBON	33K	5%	1/4W		10MF 20% 50V											
R106	1-246-516-00	CARBON	62K	5%	1/4W		0.047MF 20% 630V											
R107	1-246-497-00	CARBON	10K	5%	1/4W		C705 1-421-393-00 COIL, FERRITE CHOKE											
R108	1-246-481-00	CARBON	2.2K	5%	1/4W		COIL											
R109	1-246-481-00	CARBON	2.2K	5%	1/4W		L701 1-407-704-00 MICRO INDUCTOR 82UH											
R110	1-246-497-00	CARBON	10K	5%	1/4W		L702 1-407-704-00 MICRO INDUCTOR 82UH											
R111	1-246-509-00	CARBON	33K	5%	1/4W		L703 1-407-704-00 MICRO INDUCTOR 82UH											
R112	1-246-525-00	CARBON	150K	5%	1/4W		L704 1-407-708-00 MICRO INDUCTOR 180UH											
R118	1-246-473-00	CARBON	1K	5%	1/4W		L705 1-421-393-00 COIL, FERRITE CHOKE											
R119	1-246-509-00	CARBON	33K	5%	1/4W		TRANSISTOR											
R120	1-246-473-00	CARBON	1K	5%	1/4W		Q701 8-729-322-78 TRANSISTOR 2SC2278											
R121	1-206-664-00	METAL	1K	5%	2W	F	Q702 8-729-322-78 TRANSISTOR 2SC2278											
R122	1-205-662-00	WIREWOUND	7.5K	5%	7W		Q703 8-729-322-78 TRANSISTOR 2SC2278											
R123	1-213-131-00	METAL	100	5%	1W	F	• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.											
R124	1-246-497-00	CARBON	10K	5%	1/4W		CAPACITORS MF : $\mu$ F, PF : $\mu$ PF											
R125	1-246-465-00	CARBON	470	5%	1/4W		RESISTORS • All resistors are in ohms											
R127	1-246-516-00	CARBON	62K	5%	1/4W		• MMH : mH, UH : $\mu$ H											
R128	1-246-449-00	CARBON	100	5%	1/4W		• F : nonflammable											
R129	1-246-473-00	CARBON	1K	5%	1/4W		• Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.											

- NOTE:
- The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

- => Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.
- Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS MF :  $\mu$ F, PF :  $\mu$ PF
- RESISTORS • All resistors are in ohms
- COILS MMH : mH, UH :  $\mu$ H
- F : nonflammable

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Ref. No	Part No	Description		Remark	Ref. No	Part No	Description		Remark							
<u>RESISTOR</u>																
R701	1-246-456-00	CARBON	200	5%	1/4W	C106	1-108-389-00	MYLAR	0.1MF	10% 100V						
R702	1-246-488-00	CARBON	4.3K	5%	1/4W	C108	1-108-385-00	MYLAR	0.047MF	10% 100V						
R703	1-206-692-00	METAL	15K	5%	2W	C109	1-108-387-00	MYLAR	0.068MF	10% 100V						
R704	1-246-488-00	CARBON	4.3K	5%	1/4W	<u>TRANSISTOR</u>										
R705	1-246-456-00	CARBON	200	5%	1/4W	Q101	8-729-663-47	TRANSISTOR	2SC1364							
R706	1-206-692-00	METAL	15K	5%	2W	<u>RESISTOR</u>										
R707	1-246-460-00	CARBON	300	5%	1/4W	R101	1-246-509-00	CARBON	33K	5% 1/4W						
R708	1-246-488-00	CARBON	4.3K	5%	1/4W	R102	1-246-533-00	CARBON	330K	5% 1/4W						
R709	1-206-692-00	METAL	15K	5%	2W	R103	1-246-481-00	CARBON	2.2K	5% 1/4W						
R710	1-202-824-00	COMPOSITION	3.3K		1/2W	R104	1-246-465-00	CARBON	470	5% 1/4W						
R711	1-202-837-51	COMPOSITION	82K		1/2W	<u>CONNECTOR</u>										
R713	1-202-824-00	COMPOSITION	3.3K		1/2W	S1	▲:1-560-127-00	PLUG, CONNECTOR (2.5MM)	7P							
R714	1-202-814-51	COMPOSITION	33K		1/2W	*****										
R715	1-202-815-51	COMPOSITION	47K		1/2W	<u>MISCELLANEOUS</u>										
R716	1-202-824-00	COMPOSITION	3.3K		1/2W	*****										
R717	1-202-719-00	COMPOSITION	1M	10%	1/2W	▲:1-226-733-00	RES ASSY, HIGH-VOLTAGE									
R718	1-202-549-00	COMPOSITION	100	10%	1/2W	▲:1-452-214-00	CRT NECK ASSY (H TYPE)									
R719	1-202-719-00	COMPOSITION	1M	10%	1/2W	1-452-032-00	MAGNET, DISC 10mm Ø									
R720	1-202-843-51	COMPOSITION	270K		1/2W	1-452-094-00	MAGNET, DISK TYPE 15mm Ø									
R721	1-202-720-51	COMPOSITION	1.2M	10%	1/2W	1-452-146-00	MAGNET, BMC									
R722	1-202-839-51	COMPOSITION	120K		1/2W	▲:1-463-264-00	TUNER (BT-852)									
R723	1-202-842-51	COMPOSITION	220K		1/2W	1-527-476-00	OSCILLATOR, CERAMIC									
R724	1-246-473-00	CARBON	1K	5%	1/4W	1-536-401-XX	C-TYPE 1L1 LUG TERMINAL STRIP									
<u>VARIABLE RESISTOR</u>										*****						
RV701	1-226-209-00	RES, ADJ, CARBON	3.3K			▲:1-536-584-00	TERMINAL BOARD ASSY, ANTENNA									
RV702	1-222-515-12	RES, ADJ, CARBON	330			▲:1-551-249-00	CABLE, P-P									
RV703	1-226-209-00	RES, ADJ, CARBON	3.3K			▲:1-551-454-21	CORD, POWER									
RV704	1-222-515-31	RES, ADJ, CARBON	330			▲:1-551-607-41	CONNECTOR ASSY, MINI (3P)									
RV705	1-226-209-00	RES, ADJ, CARBON	3.3K			▲:1-551-653-00	FEEDER, SOLDERLESS TERMINAL									
RV706	1-226-063-00	RES, ADJ, CARBON	2.2M			▲:1-551-655-00	CONNECTOR, ASSY (5P)									
RV707	1-226-114-00	RES, ADJ, METAL GLAZE	2.2M			▲:1-551-793-00	CONNECTOR ASSY (L) 2P									
<u>SPARK GAP</u>										*****						
SG701	1-519-063-XX	DISCHARGING GAP				▲:1-551-919-00	CONNECTOR ASSY 3P									
SG702	1-519-063-XX	DISCHARGING GAP				1-551-941-00	CONNECTOR ASSY (2.5MM) 9P									
SG703	1-519-063-XX	DISCHARGING GAP				▲:1-555-032-00	CONNECTOR ASSY, MINIATURE 3P									
SG704	1-519-063-XX	DISCHARGING GAP				▲:1-555-190-61	CONNECTOR, MINIATURE 2P									
SG705	1-519-063-XX	DISCHARGING GAP				▲:1-555-190-71	CONNECTOR, MINIATURE 2P									
SG706	1-519-063-XX	DISCHARGING GAP				▲:1-555-344-00	CONNECTOR ASSY (2.5MM) 7P									
*****						▲:1-555-439-00	CONNECTOR ASSY (LARGE) 3P									
<u>S BOARD</u>						1-555-445-11	CORD, POWER									
*****						▲:1-555-470-00	CONNECTOR ASSY (2.5MM) 8P									
<u>CAPACITOR</u>						1-555-619-00	CONNECTOR ASSY (2.5MM) 5P									
C101	1-123-317-00	ELECT	22MF	20%	16V	1-555-651-00	CONNECTOR ASSY (2.5MM) 6P									
C102	1-123-329-00	ELECT	10MF	20%	25V	▲:1-555-653-00	CONNECTOR ASSY (2.5MM) 4P									
C103	1-123-329-00	ELECT	10MF	20%	25V	▲:1-555-688-00	CONNECTOR ASSY, MINIATURE 4P									
C104	1-123-318-00	ELECT	33MF	20%	16V	▲:1-555-754-00	CONNECTOR ASSY (2.5MM) 3P									
C105	1-123-318-00	ELECT	33MF	20%	16V	▲:1-555-755-00	CONNECTOR ASSY (2.5MM) 3P									
1-561-335-00										CONNECTOR, ANTENNA (EAC-31)						

## NOTE:

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

- => Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

- CAPACITORS MF :  $\mu$ F, PF :  $\mu\mu$ F
- RESISTORS All resistors are in ohms
- F : nonflammable

- COILS MMH : mH, UH :  $\mu$ H

**KV-1746R**

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>
C 901	A.1-102-327-00	CAP, CERAMIC 330PF 1.5KV	
J 901A	1-507-372-00	JM-35 DOUBLE JACK	
J 901B	1-507-372-00	JM-35 DOUBLE JACK	
L 901	A.1-425-894-51	COIL DEGAUSSING	
L 902	A.1-425-894-51	COIL DEGAUSSING	
L 903	1-407-365-00	COIL, CHOKE (HIGH FREQUENCY)	
L 904	1-408-349-00	COIL, CHOKE	
L 905	A.1-451-202-00	DEFLECTION YOKE (SY-75B)	
Q 901	8-729-286-90	TRANSISTOR 2SD869	
R 901	A.1-217-605-00	RES, WIREWOUND 2.2 (10W)	
R 902	1-205-608-00	RES, CEMENT 180 (20W)	
S 901	1-553-262-00	SWITCH, PUSH (POWER SWITCH)	
SP 901	1-502-766-00	SPEAKER	
V 901	A.8-738-501-05	PICTURE TUBE (470KXB22)	

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ACCESSORIES AND PACKING MATERIALS

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<u>Part No</u>	<u>Description</u>	<u>Remark</u>
Y-2063-103-0	AN-15 LOOP ANTENNA	
Y-2201-611-0	OVERALL ASSY, AN-16	
1-504-034-32	EARPHONE, MAGNETIC (ME-20B)	
1-528-068-11	DRY BATTERY, CARBON-ZINC	
3-701-620-00	BAG, POLYETHYLENE (RM703)	
4-329-149-01	LABEL (B), INDICATOR	
4-348-138-00	INDIVIDUAL CARTON	
4-349-950-00	BAG, POLYETHYLENE	
4-350-956-00	CUSHION (LEFT UPPER)	
4-350-957-00	CUSHION (RIGHT UPPER)	
4-350-958-00	CUSHION (LEFT LOWER)	
4-350-959-00	CUSHION (RIGHT LOWER)	
4-491-213-21	INSTRUCTION	
4-491-513-00	SCHEMATIC DIAGRAM (B2) (SONAM)	
4-493-550-21	MANUAL, INSTRUCTION	
7-822-282-01	IBM, CARD (WHITE)	
7-822-282-02	IBM, CARD (PINK)	
7-822-282-03	IBM, CARD (YELLOW)	

NOTE :

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

• =>: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

• Items marked "♦" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS  
• MF :  $\mu$ F, PF :  $\mu\mu$ F

RESISTORS  
• All resistors are in ohms  
• F : nonflammable

COILS  
• MMH : mH, UH :  $\mu$ H

N A

KV-1946R

Ref.No	Part No	Description	Remark	Ref.No	Part No	Description	Remark
•:1-603-976-00	N BOARD *****			C209	1-102-121-00	CERAMIC	0.0022MF 10% 50V
1-232-004-00	COMPOSITION CIRCUIT BLOCK			C211	1-108-389-00	MYLAR	0.1MF 10% 100V
		<u>CAPACITOR</u>		C212	1-123-353-00	ELECT	2.2MF 20% 50V
C1	1-123-617-00	ELECT	10MF 20% 16V	C213	1-108-386-00	MYLAR	0.056MF 10% 100V
C2	1-123-617-00	ELECT	10MF 20% 16V	C215	1-102-503-00	CERAMIC	3PF 0.25PF 50V
C3	1-123-617-00	ELECT	10MF 20% 16V	C216	1-102-503-00	CERAMIC	3PF 0.25PF 50V
C4	1-161-019-00	CERAMIC	0.033MF 10% 25V	C217	1-102-963-00	CERAMIC	33PF 5% 50V
C5	1-108-567-00	MYLAR	0.0033MF 5% 50V	C218	1-161-282-00	CERAMIC	18PF 5% 50V
		<u>DIODE</u>		C219	1-102-121-00	CERAMIC	0.0022MF 10% 50V
D1	8-719-100-33	DIODE PH302A		C220	1-102-074-00	CERAMIC	0.001MF 10% 50V
		<u>IC</u>		C221	1-123-356-00	ELECT	10MF 20% 16V
IC1	8-759-113-73	IC UPC1373H		C222	1-102-121-00	CERAMIC	0.0022MF 10% 50V
		<u>COIL</u>		C225	1-101-006-00	CERAMIC	0.047MF 50V
L1	1-404-310-00	COIL		C226	1-161-294-00	CERAMIC	12PF 5% 50V
		*****		C228	1-123-352-00	ELECT	1MF 20% 50V
•:A-1295-473-A	A BOARD, COMPLETE *****			C229	1-102-129-00	CERAMIC	0.01MF 10% 50V
				C230	1-102-114-00	CERAMIC	470PF 10% 50V
				C231	1-108-379-00	MYLAR	0.015MF 10% 100V
				C232	1-123-351-00	ELECT	0.47MF 20% 50V
				C233	1-123-323-00	ELECT	470MF 20% 16V
				C234	1-123-356-00	ELECT	10MF 20% 16V
				C235	1-123-351-00	ELECT	0.47MF 20% 50V
				C236	1-102-820-00	CERAMIC	330PF 5% 50V
				C237	1-102-244-00	CERAMIC	220PF 10% 500V
				C238	1-123-026-00	ELECT	2.2MF 160V
				C239	1-123-352-00	ELECT	1MF 20% 50V
				C240	1-102-496-00	CERAMIC	82PF 5% 50V
				C241	1-102-518-00	CERAMIC	33PF 5% 50V
				C242	1-102-494-00	CERAMIC	68PF 5% 50V
				C243	1-123-381-00	ELECT	2.2MF 20% 100V
				C245	1-161-279-00	CERAMIC	10PF 5% 50V
				C246	1-102-129-00	CERAMIC	0.01MF 10% 50V
				C247	1-108-369-00	MYLAR	0.0022MF 10% 100V
				C249	1-123-319-00	ELECT	47MF 20% 16V
				C250	1-101-845-00	CERAMIC	0.001MF 500V
				C251	1-102-074-00	CERAMIC	0.001MF 10% 50V
				C302	1-161-271-00	CERAMIC	100PF 5% 50V
				C303	1-161-272-00	CERAMIC	120PF 5% 50V
				C304	1-121-806-00	ELECT	10MF 16V
				C308	1-101-004-00	CERAMIC	0.01MF 50V
				C309	1-102-820-00	CERAMIC	330PF 5% 50V
				C310	1-123-351-00	ELECT	0.47MF 20% 50V
				C311	1-108-370-00	MYLAR	0.0027MF 10% 100V
				C312	1-123-586-00	ELECT	0.1MF 20% 50V
				C313	1-108-385-00	MYLAR	0.047MF 10% 100V
				C314	1-123-356-00	ELECT	10MF 20% 16V
				C315	1-123-354-00	ELECT	3.3MF 20% 50V
				C316	1-102-963-00	CERAMIC	33PF 5% 50V
				C317	1-102-822-00	CERAMIC	390PF 5% 50V
				C318	1-123-447-00	ELECT	0.22MF 20% 50V
C201	1-101-888-00	CERAMIC	68PF 5% 50V	C319	1-123-328-00	ELECT	4.7MF 20% 25V
C205	1-102-121-00	CERAMIC	0.0022MF 10% 50V	C320	1-123-447-00	ELECT	0.22MF 20% 50V
C206	1-102-121-00	CERAMIC	0.0022MF 10% 50V	C321	1-101-888-00	CERAMIC	68PF 5% 50V
C207	1-161-383-00	CERAMIC	0.0047MF 10% 50V				
C208	1-102-121-00	CERAMIC	0.0022MF 10% 50V				

NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

=> Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Items marked "•" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS

• MF :  $\mu$ F, PF :  $\mu\mu$ F

RESISTORS

• All resistors are in ohms

COILS

• MMH : mH, UH :  $\mu$ H

• F : nonflammable

A

KV-1946R

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>			<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>			<u>Remark</u>	
C323	1-102-947-00	CERAMIC	10PF	5%	50V	C554	1-123-351-00	ELECT	0.47MF	20%	50V	
C324	1-102-959-00	CERAMIC	22PF	5%	50V	C555	1-123-344-00	ELECT	47MF	20%	35V	
C326	1-123-321-00	ELECT	220MF	20%	16V	C556	1-123-351-00	ELECT	0.47MF	20%	50V	
C327	1-161-271-00	CERAMIC	100PF	5%	50V	C558	1-123-354-00	ELECT	3.3MF	20%	50V	
C328	1-161-316-00	CERAMIC	270PF	10%	50V	C560	1-102-129-00	CERAMIC	0.01MF	10%	50V	
C329	1-123-356-00	ELECT	10MF	20%	16V	C561	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C330	1-102-947-00	CERAMIC	10PF	5%	50V	C575	1-123-328-00	ELECT	4.7MF	20%	25V	
C331	1-102-947-00	CERAMIC	10PF	5%	50V	C576	1-123-351-00	ELECT	0.47MF	20%	50V	
C501	1-123-352-00	ELECT	1MF	20%	50V	C577	1-108-387-00	MYLAR	0.068MF	10%	100V	
C502	1-161-003-00	CERAMIC	0.0015MF	10%	25V	C578	1-123-352-00	ELECT	1MF	20%	50V	
C505	1-123-354-00	ELECT	3.3MF	20%	50V	C601	A.1-108-745-00	MYLAR	0.22MF	20%	125V	
C506	1-108-374-00	MYLAR	0.0056MF	10%	100V	C605	1-125-215-00	ELECT(BLOCK)	560MF	200V		
C507	1-161-063-00	CERAMIC	0.1MF	10%	50V	C606	1-123-355-00	ELECT	4.7MF	20%	50V	
C508	1-130-203-00	FILM	0.01MF	5%	50V	C607	1-121-246-00	ELECT	4.7MF	160V		
C509	1-108-373-00	MYLAR	0.0047MF	10%	100V	C608	1-102-030-00	CERAMIC	330PF	10%	500V	
C510	1-161-018-00	CERAMIC	0.027MF	10%	25V	C609	1-123-026-00	ELECT	2.2MF		160V	
C511	1-123-353-00	ELECT	2.2MF	20%	50V			<u>FILTER</u>				
C512	1-123-351-00	ELECT	0.47MF	20%	50V	CF201	1-527-260-00	FILTER, CERAMIC (4.5MHZ)				
C514	1-123-356-00	ELECT	10MF	20%	16V	CF202	1-409-332-00	CERAMIC TRAP (4.5MHZ)				
C515	1-161-383-00	CERAMIC	0.0047MF	10%	50V			<u>TRIMMER</u>				
C516	1-102-820-00	CERAMIC	330PF	5%	50V	CV301	1-141-212-00	CAP, TRIMMER				
C517	1-102-030-00	CERAMIC	330PF	10%	500V			<u>DIODE</u>				
C518	1-108-689-11	MYLAR	0.0056MF	10%	200V	C521	1-123-356-00	ELECT	10MF	20%	16V	
C519	1-121-757-00	ELECT	33MF		160V	D202	8-719-113-25	DIODE	RD13E-B2Z			
C520	1-123-333-00	ELECT	100MF	20%	25V	D203	=>8-719-911-19	DIODE	ISS119			
C521	1-123-356-00	ELECT	10MF	20%	16V	D204	=>8-719-911-19	DIODE	ISS119			
C523	1-108-384-00	MYLAR	0.039MF	10%	100V	D301	=>8-719-900-93	DIODE	V09C			
C524	1-131-361-00	TANTALUM	2.2MF	20%	20V	D501	=>8-719-911-19	DIODE	ISS119			
C525	1-123-323-00	ELECT	470MF	20%	16V	D502	=>8-719-156-25	DIODE	RD5.6E-B2Z			
C526	1-131-197-00	TANTALUM	3.3MF	10%	16V	D505	=>8-719-911-55	DIODE	U05G			
C527	1-108-383-00	MYLAR	0.033MF	10%	100V	D506	=>8-719-900-93	DIODE	V09C			
C528	1-108-383-00	MYLAR	0.033MF	10%	100V	D507	=>8-719-911-55	DIODE	U05G			
C529	1-123-344-00	ELECT	47MF	20%	35V	D508	=>8-719-911-55	DIODE	U05G			
C530	1-102-244-00	CERAMIC	220PF	10%	500V	D509	8-719-305-15	DIODE	GH3F			
C531	1-123-587-00	ELECT	560MF	10%	25V	D510	8-719-305-15	DIODE	GH3F			
C532	1-123-584-00	ELECT	22MF	10%	16V	D511	A.8-719-901-94	DIODE	V19CS			
C533	1-123-330-00	ELECT	22MF	20%	25V	D512	=>8-719-300-76	DIODE	RH1A			
C534	1-123-003-00	ELECT	1MF		250V	D513	8-719-903-09	DIODE	V3ON			
C535	1-130-548-51	FILM	0.3MF	5%	400V	D514	8-719-903-09	DIODE	V3ON			
C536	1-102-212-00	CERAMIC	820PF	10%	500V	D515	=>8-719-931-24	DIODE	EQB01-24			
C537	1-123-357-00	ELECT	22MF	20%	50V	D601	=>8-719-911-55	DIODE	U05G			
C538	1-123-286-00	ELECT	0.33MF	20%	50V	D602	=>8-719-911-55	DIODE	U05G			
C539	1-123-346-00	ELECT	220MF	20%	35V	D603	=>8-719-911-55	DIODE	U05G			
C540	1-102-212-00	CERAMIC	820PF	10%	500V	D604	=>8-719-911-55	DIODE	U05G			
C541	1-102-212-00	CERAMIC	820PF	10%	500V			<u>DELAY LINE</u>				
C542	1-123-335-00	ELECT	330MF	20%	25V	DL301	1-415-200-00	DELAY LINE				
C544	1-123-385-00	ELECT	22MF	20%	100V							
C545	A.1-130-546-00	FILM	9800PF	3%	11.2KV							
C546	A.1-108-963-00	MYLAR	0.22MF	10%	200V							
C548	1-102-223-00	CERAMIC	0.0047MF	20%	1.6KV							
C549	1-121-246-00	ELECT	4.7MF		160V							
C550	1-102-973-00	CERAMIC	100PF	5%	50V							
C553	1-102-030-00	CERAMIC	330PF	10%	500V							

## NOTE:

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

=>: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

• Items marked "♦" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS  
• MF :  $\mu\text{F}$ , PF :  $\mu\mu\text{F}$

RESISTORS  
• All resistors are in ohms  
• F : nonflammable

COILS  
• MMH :  $\text{mH}$ , UH :  $\mu\text{H}$

## KV-1946R

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>
<u>CONNECTOR</u>							
DY1	8:1-506-348-XX	3P PLUG (L)		Q301	8-729-663-47	TRANSISTOR 2SC1364	
DY2	8:1-506-348-XX	3P PLUG (L)		Q502	8-729-326-10	TRANSISTOR 2SC261OBK	
<u>FUSE</u>							
F601	A-1-532-272-XX	FUSE 5A		Q503	8-729-177-43	TRANSISTOR 2SD774	
F602	A-1-532-570-00	FUSE, GLASS TUBE 1.25A		Q505	8-729-663-47	TRANSISTOR 2SC1364	
				Q506	=>8-729-117-54	TRANSISTOR 2SA1175	
<u>IC</u>							
IC201	8-759-600-05	IC CX-555A		R200	1-246-521-00	CARBON	100K 5% 1/4W
IC202	8-759-600-43	IC CX-843A		R201	1-246-431-00	CARBON	18 5% 1/4W
IC301	8-759-105-56	IC CX-556		R203	1-246-422-00	CARBON	7.5 5% 1/4W
IC501	8-759-100-07	IC CX-557S		R208	1-246-481-00	CARBON	2.2K 5% 1/4W
IC502	8-759-113-68	IC UPC1368H		R209	1-246-497-00	CARBON	10K 5% 1/4W
IC601	A-1-231-705-00	MODULE, POWER		R210	1-246-463-00	CARBON	390 5% 1/4W
<u>JACK</u>							
J201	8:1-526-575-00	SOCKET, PLUG		R211	1-246-469-00	CARBON	680 5% 1/4W
<u>COIL</u>							
L201	1-407-694-00	MICRO INDUCTOR 12UH		R212	1-211-602-00	CARBON	33 5% 1/2W F
L202	1-407-687-00	MICRO INDUCTOR 3.3UH		R214	1-246-457-00	CARBON	220 5% 1/4W
L203	1-407-189-XX	MICRO INDUCTOR 8.2UH		R215	1-246-461-00	CARBON	330 5% 1/4W
L204	1-425-613-00	COIL, AIR-CORE, QF TYPE		R216	1-246-483-00	CARBON	2.7K 5% 1/4W
L205	1-407-701-00	MICRO INDUCTOR 47UH		R217	1-246-519-00	CARBON	82K 5% 1/4W
L302	1-407-699-00	MICRO INDUCTOR 33UH		R218	1-246-473-00	CARBON	1K 5% 1/4W
L303	1-408-163-00	MICRO INDUCTOR 5.6MMH		R220	1-246-517-00	CARBON	68K 5% 1/4W
L304	1-407-166-XX	MICRO INDUCTOR 56UH		R221	1-246-469-00	CARBON	680 5% 1/4W
L305	1-407-698-00	MICRO INDUCTOR 27UH		R222	1-246-473-00	CARBON	1K 5% 1/4W
L501	1-407-693-00	MICRO INDUCTOR 10UH		R223	1-246-473-00	CARBON	1K 5% 1/4W
L502	A-1-459-316-00	COIL, FERRITE (HLC)		R226	1-246-481-00	CARBON	2.2K 5% 1/4W
L503	A-1-459-315-00	COIL, VAR, FERRITE (HWC)		R227	1-246-507-00	CARBON	27K 5% 1/4W
L504	1-407-501-31	MICRO INDUCTOR 5.6MMH		R228	1-246-483-00	CARBON	2.7K 5% 1/4W
L505	1-407-699-00	MICRO INDUCTOR 33UH		R229	1-246-473-00	CARBON	1K 5% 1/4W
L506	1-408-348-00	MICRO INDUCTOR 39UH		R230	1-246-522-00	CARBON	110K 5% 1/4W
L508	1-407-202-XX	MICRO INDUCTOR 4.7MMH		R231	1-246-497-00	CARBON	10K 5% 1/4W
L509	1-408-348-00	MICRO INDUCTOR 39UH		R232	1-217-395-00	FUSIBLE	47 5% 1/4W F
L514	1-407-494-00	MICRO INDUCTOR 1.5MMH		R233	1-246-449-00	CARBON	100 5% 1/4W
L601	A-1-408-225-00	MICRO INDUCTOR 3.3UH		R234	1-246-459-00	CARBON	270 5% 1/4W
L602	A-1-408-225-00	MICRO INDUCTOR 3.3UH		R235	1-246-451-00	CARBON	120 5% 1/4W
<u>NEON LAMP</u>							
NL501	1-519-108-XX	LAMP, NEON ASSY		R236	1-246-481-00	CARBON	2.2K 5% 1/4W
NL601	1-519-108-XX	LAMP, NEON ASSY		R237	1-211-421-00	CARBON	39 5% 1/8W F
<u>TRANSISTOR</u>							
Q202	8-729-663-47	TRANSISTOR 2SC1364		R238	1-246-489-00	CARBON	4.7K 5% 1/4W
Q203	=>8-729-316-16	TRANSISTOR 2SC1061		R240	1-246-485-00	CARBON	3.3K 5% 1/4W
Q204	8-729-309-06	TRANSISTOR 2SC1890A		R241	1-246-489-00	CARBON	4.7K 5% 1/4W
Q205	8-729-306-92	TRANSISTOR 2SD669A		R243	1-212-373-00	METAL	12 5% 1W F
Q206	8-729-304-92	TRANSISTOR 2SB649A		R245	1-246-521-00	CARBON	100K 5% 1/4W
				R246	1-211-602-00	CARBON	33 5% 1/2W F
				R247	1-246-473-00	CARBON	1K 5% 1/4W
				R249	1-246-473-00	CARBON	1K 5% 1/4W
				R250	1-246-473-00	CARBON	1K 5% 1/4W
				R301	1-246-477-00	CARBON	1.5K 5% 1/4W
				R302	1-246-479-00	CARBON	1.8K 5% 1/4W
				R306	1-246-483-00	CARBON	2.7K 5% 1/4W
				R307	1-246-443-00	CARBON	56 5% 1/4W
				R309	1-246-491-00	CARBON	5.6K 5% 1/4W
				R310	1-246-469-00	CARBON	680 5% 1/4W

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

=> Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS  
• MF :  $\mu$ F, PF :  $\mu\mu$ F

RESISTORS  
• All resistors are in ohms  
• F : nonflammable

COILS  
• MMH : mH, UH :  $\mu$ H

# A

KV-1946R

- The components identified by **█** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Ref.No	Part No	Description	Remark	Ref.No	Part No	Description	Remark				
R311	1-246-505-00	CARBON	22K 5% 1/4W	R545	1-244-855-00	CARBON	180 5% 1/2W				
R312	1-246-473-00	CARBON	1K 5% 1/4W	R546	1-247-009-00	CARBON	470 5% 1/4W F				
R313	1-246-498-00	CARBON	11K 5% 1/4W	R547	1-246-491-00	CARBON	5.6K 5% 1/4W				
R314	1-246-506-00	CARBON	24K 5% 1/4W	R548	1-211-417-00	CARBON	22 5% 1/8W F				
R315	1-246-473-00	CARBON	1K 5% 1/4W	R549	1-246-493-00	CARBON	6.8K 5% 1/4W				
R316	1-246-477-00	CARBON	1.5K 5% 1/4W	R550	1-206-705-00	METAL	150 5% 3W F				
R317	1-246-461-00	CARBON	330 5% 1/4W	R551	1-247-015-00	CARBON	2.2K 5% 1/4W F				
R318	1-246-461-00	CARBON	330 5% 1/4W	R552	1-246-513-00	CARBON	47K 5% 1/4W				
R320	1-246-469-00	CARBON	680 5% 1/4W	R553	1-246-482-00	CARBON	2.4K 5% 1/4W				
R321	1-246-461-00	CARBON	330 5% 1/4W	R554	1-212-361-00	METAL	1.2 5% 1W F				
R323	1-246-495-00	CARBON	8.2K 5% 1/4W	R555	1-213-146-00	METAL	1.8K 5% 1W F				
R326	1-246-457-00	CARBON	220 5% 1/4W	R556A	1-214-908-00	METAL	62K 1% 1/2W				
R327	1-246-479-00	CARBON	1.8K 5% 1/4W	R557	1-246-491-00	CARBON	5.6K 5% 1/4W				
R328	1-246-477-00	CARBON	1.5K 5% 1/4W	R558	1-244-899-00	CARBON	12K 5% 1/2W				
R331	1-246-487-00	CARBON	3.9K 5% 1/4W	R559	1-246-472-00	CARBON	910 5% 1/4W				
R332	1-246-449-00	CARBON	100 5% 1/4W	R560	1-206-678-00	METAL	3.9K 5% 2W F				
R333	1-246-467-00	CARBON	560 5% 1/4W	R561	1-213-140-00	METAL	560 5% 1W F				
R501	1-246-453-00	CARBON	150 5% 1/4W	R562	1-212-356-00	METAL	0.47 5% 1W F				
R502	1-246-537-00	CARBON	470K 5% 1/4W	R563 <b>△</b>	1-246-461-00	CARBON	1/4W				
R506	1-246-511-00	CARBON	39K 5% 1/4W	R570	1-246-461-00	CARBON	330 5% 1/4W				
R507	1-246-518-00	CARBON	75K 5% 1/4W	R575	1-246-491-00	CARBON	5.6K 5% 1/4W				
R508	1-246-509-00	CARBON	33K 5% 1/4W	R576	1-246-465-00	CARBON	470 5% 1/4W				
R509	1-246-523-00	CARBON	120K 5% 1/4W	R577	1-246-533-00	CARBON	330K 5% 1/4W				
R510	1-246-487-00	CARBON	3.9K 5% 1/4W	R578	1-246-513-00	CARBON	47K 5% 1/4W				
R511	1-246-504-00	CARBON	20K 5% 1/4W	R579	1-246-475-00	CARBON	1.2K 5% 1/4W				
R512	1-246-481-00	CARBON	2.2K 5% 1/4W	R581	1-246-485-00	CARBON	3.3K 5% 1/4W				
R514	1-246-507-00	CARBON	27K 5% 1/4W	R583	1-246-529-00	CARBON	220K 5% 1/4W				
R515	1-246-489-00	CARBON	4.7K 5% 1/4W	R584	1-246-481-00	CARBON	2.2K 5% 1/4W				
R516	1-246-479-00	CARBON	1.8K 5% 1/4W	R585	1-211-933-00	CARBON	47 5% 1/8W F				
R517	1-246-453-00	CARBON	150 5% 1/4W	R602 <b>△</b> 1-202-719-00	COMPOSITION	1M 10%	1/2W F				
R518	1-246-481-00	CARBON	2.2K 5% 1/4W	R603	1-213-163-00	METAL	47K 5% 1W F				
R520	1-206-679-00	METAL	4.3K 5% 2W F	R605	1-246-991-00	CARBON	150 5% 1/8W F				
R521	1-246-467-00	CARBON	560 5% 1/4W	R606 <b>△</b> 1-213-156-00	METAL	12K 5% 1W F					
R523A	1-246-456-00	CARBON	200 5% 1/4W	R607 <b>△</b> 1-244-890-00	CARBON	5.1K 5% 1/2W					
R524	1-246-493-00	CARBON	6.8K 5% 1/4W	R608	1-247-037-00	CARBON	390 5% 1/8W F				
R525	1-246-487-00	CARBON	3.9K 5% 1/4W	R609 <b>△</b> 1-213-163-00	METAL	47K 5% 1W F					
R526	1-246-506-00	CARBON	24K 5% 1/4W	R610	1-246-528-00	CARBON	200K 5% 1/4W				
R527	1-246-457-00	CARBON	220 5% 1/4W	<b>VARIABLE RESISTOR</b>							
R528	1-214-144-00	METAL	3.3K 1% 1/4W	RV201	1-224-644-XX	RES, ADJ, CARBON	4.7K				
R529	1-214-152-00	METAL	6.8K 1% 1/4W	RV202	1-224-644-XX	RES, ADJ, CARBON	4.7K				
R530	1-246-509-00	CARBON	33K 5% 1/4W	RV301A	1-226-078-00	RES, VAR, CARBON (SNAP IN)	10K				
R531	1-246-515-00	CARBON	56K 5% 1/4W	RV303	1-226-408-00	RES, VAR, CARBON (SNAP IN)	500				
R533	1-246-477-00	CARBON	1.5K 5% 1/4W	RV304	1-224-644-XX	RES, ADJ, CARBON	4.7K				
R535	1-244-863-00	CARBON	390 5% 1/2W	RV305	1-226-075-00	RES, VAR, CARBON (SNAP IN)	10K				
R536	1-246-480-00	CARBON	2K 5% 1/4W	RV306	1-226-075-00	RES, VAR, CARBON (SNAP IN)	10K				
R537	1-212-360-00	METAL	1 5% 1W F	RV307	1-224-552-00	RES, ADJ, CARBON	470K				
R538	1-246-473-00	CARBON	1K 5% 1/4W	RV308	1-224-641-XX	RES, ADJ, CARBON	470				
R539	1-246-472-00	CARBON	910 5% 1/4W	RV501	1-226-819-00	RES, ADJ, METAL GLAZE	1K				
R540	1-246-505-00	CARBON	22K 5% 1/4W	RV502	1-224-967-00	RES, ADJ, CARBON	22K				
R541	1-246-482-00	CARBON	2.4K 5% 1/4W	RV503A	1-226-077-00	RES, VAR, CARBON (SNAP IN)	5K				
R542	1-247-586-00	CARBON	3.9K 5% 1/8W	RV504	1-224-644-XX	RES, ADJ, CARBON	4.7K				
R543B	1-246-443-00	CARBON	56 5% 1/4W								
R544	1-246-472-00	CARBON	910 5% 1/4W								

NOTE:

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- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

- |                                 |                             |                          |
|---------------------------------|-----------------------------|--------------------------|
| CAPACITORS                      | RESISTORS                   | COILS                    |
| • MF : $\mu$ F, PF : $\mu\mu$ F | • All resistors are in ohms | • MMH : mH, UH : $\mu$ H |
|                                 | • F : nonflammable          |                          |

A M M1

KV-1946R

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>				
<u>SWITCH</u>											
S301	1-553-176-00	SWITCH, ROTARY		NL2223	1-519-154-00	LAMP, NEON					
				NL2224	1-519-154-00	LAMP, NEON					
				NL2225	1-519-154-00	LAMP, NEON					
				NL2226	1-519-130-51	LAMP, NEON					
<u>SPARK GAP</u>											
SG501	1-519-063-XX	DISCHARGING GAP		<u>SWITCH</u>							
				S2206	1-553-685-00	SWITCH, PUSH					
				S2207	1-553-685-00	SWITCH, PUSH					
				S2208	1-553-685-00	SWITCH, PUSH					
				S2209	1-553-685-00	SWITCH, PUSH					
				S2210	1-553-685-00	SWITCH, PUSH					
<u>TRANSFORMER</u>											
T201	1-409-319-00	COIL, TRAP		S2211	1-552-437-00	SWITCH, LEVER					
T202	1-409-318-00	COIL, TRAP		S2212	1-552-774-00	SWITCH, PUSH					
T203	1-404-181-00	COIL, VIF		S2213	1-552-774-00	SWITCH, PUSH					
T204	1-404-182-00	COIL, VIF		S2214	1-552-774-00	SWITCH, PUSH					
T205	1-404-181-00	COIL, VIF		S2215	1-552-774-00	SWITCH, PUSH					
T206	1-403-367-00	COIL, SIF		S2216	1-552-774-00	SWITCH, PUSH					
T207	1-403-871-00	SIFT-2 COIL		S2217	1-552-774-00	SWITCH, PUSH					
T208	1-404-179-00	FILTER, HELICAL		S2218	1-552-774-00	SWITCH, PUSH					
T209 $\Delta$	1-427-437-00	TRANSFORMER, OUTPUT		S2219	1-552-774-00	SWITCH, PUSH					
T301	1-425-995-00	TRANSFORMER, INPUT		S2220	1-552-774-00	SWITCH, PUSH					
T302	1-409-193-00	COIL 3.58MHZ TRAP		S2221	1-552-774-00	SWITCH, PUSH					
T501	1-437-090-00	HDT		S2222	1-552-774-00	SWITCH, PUSH					
T501	1-437-090-00	HDT		S2223	1-552-774-00	SWITCH, PUSH					
T502 $\Delta$	1-421-394-00	TRANSFORMER, FERRITE (HPCT)		S2224	1-552-774-00	SWITCH, PUSH					
T503 $\Delta$	1-439-254-00	TRANSFORMER ASSY, FLYBACK		S2225	1-552-774-00	SWITCH, PUSH					
T601 $\Delta$	1-421-357-00	TRANSFORMER, LINE FILTER		*****							
<u>THERMISTOR</u>											
THP601 $\Delta$	1-800-686-00	THERMISTOR		•:1-604-594-00 M1 BOARD *****							
<u>CRYSTAL</u>											
X301	1-527-396-00	CRYSTAL, OSC		•:4-333-118-00 HOLDER (B), LED •:4-342-714-00 COVER, LED •:4-350-901-00 HOLDER (M), LED							
*****											
•:1-604-593-00 M BOARD *****											
<u>DIODE</u>											
D2209	8-719-815-55	DIODE 1S1555		C2201	1-123-353-00	ELECT	2.2MF				
D2210	8-719-815-55	DIODE 1S1555		C2202	1-123-352-00	ELECT	1MF				
<u>NEON LAMP</u>											
NL2212	1-519-154-00	LAMP, NEON		<u>DIODE</u>							
NL2213	1-519-154-00	LAMP, NEON		D2201	8-719-925-26	DIODE SLP252B-06					
NL2214	1-519-154-00	LAMP, NEON		D2206	8-719-812-41	DIODE TLR124					
NL2215	1-519-154-00	LAMP, NEON		D2207	8-719-812-42	DIODE TLY124					
NL2216	1-519-154-00	LAMP, NEON		D2208	8-719-812-43	DIODE TLG124					
NL2217	1-519-154-00	LAMP, NEON		<u>IC</u>							
NL2218	1-519-154-00	LAMP, NEON		IC2201	8-759-619-03	IC M51903L					
NL2219	1-519-154-00	LAMP, NEON		<u>RESISTOR</u>							
NL2220	1-519-154-00	LAMP, NEON		R2200	1-246-497-00	CARBON	10K 5% 1/4W				
NL2221	1-519-154-00	LAMP, NEON		R2201	1-246-469-00	CARBON	680 5% 1/4W				
NL2222	1-519-154-00	LAMP, NEON		R2202	1-246-469-00	CARBON	680 5% 1/4W				
NL2222	1-519-154-00	LAMP, NEON		R2203	1-246-469-00	CARBON	680 5% 1/4W				
				R2204	1-246-469-00	CARBON	680 5% 1/4W				

NOTE:

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CAPACITORS  
• MF :  $\mu$ F, PF :  $\mu\mu$ F

RESISTORS  
• All resistors are in ohms  
• F : nonflammable

COILS  
• MMH : mH, UH :  $\mu$ H

**KV-1946R**

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>			<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>			<u>Remark</u>
R2205	1-246-469-00	CARBON	680	5%	1/4W	C052	1-108-421-00	MYLAR	0.01MF	10%	200V
R2206	1-246-449-00	CARBON	100	5%	1/4W	C053	1-102-129-00	CERAMIC	0.01MF	10%	50V
R2207	1-246-485-00	CARBON	3.3K	5%	1/4W	C054	1-108-421-00	MYLAR	0.01MF	10%	200V
<u>SWITCH</u>											
S2201	1-552-656-00	SWITCH, SLIDE				C056	1-108-421-00	MYLAR	0.01MF	10%	200V
S2202	1-552-656-00	SWITCH, SLIDE				C058	1-123-333-00	ELECT	100MF	20%	16V
S2203	1-553-685-00	SWITCH, PUSH				C059	1-102-129-00	CERAMIC	0.01MF	10%	50V
S2204	1-553-685-00	SWITCH, PUSH				C061	1-123-356-00	ELECT	10MF	20%	16V
S2205	1-553-685-00	SWITCH, PUSH				C062	1-123-333-00	ELECT	100MF	20%	16V
*****											
●:A-1306-121-A ME BOARD COMPLETE						C063	1-161-269-00	CERAMIC	68PF	5%	50V
*****						C064	1-161-271-00	CERAMIC	100PF	5%	50V
*****						C065	1-161-317-00	CERAMIC	330PF	10%	50V
*****						C142	1-101-004-00	CERAMIC	0.01MF	50V	
<u>COMPOSITION</u>											
●:4-334-254-00	CASE (MAIN), SHIELD, M2					CP001	1-231-569-00	COMPOSITION CIRCUIT BLOCK			
●:4-334-255-00	LID, UPPER, M2 SHIELD CASE					CP002	1-231-683-00	COMPOSITION CIRCUIT BLOCK			
●:4-334-256-00	LID, REAR, M2 SHIELD CASE					CP003	1-231-618-00	COMPOSITION CIRCUIT BLOCK			
<u>CAPACITOR</u>											
C001	1-161-272-00	CERAMIC	120PF	5%	50V	D002 =>8-719-911-19	DIODE	ISS119			
C002	1-123-352-00	ELECT	1MF	20%	50V	D006 =>8-719-930-12	DIODE	EQB01-12Z			
C003	1-123-352-00	ELECT	1MF	20%	50V	D007 =>8-719-911-55	DIODE	U05G			
C004	1-161-319-00	CERAMIC	470PF	10%	50V	D008	8-719-900-93	DIODE	V09C		
C006	1-161-323-00	CERAMIC	0.001MF	10%	50V	D009	8-719-100-24	DIODE	RD4.3EB3		
C007	1-123-333-00	ELECT	100MF	20%	16V	D010 =>8-719-911-19	DIODE	ISS119			
C009	1-161-315-00	CERAMIC	220PF	10%	50V	D011 =>8-719-911-19	DIODE	ISS119			
C010	1-161-315-00	CERAMIC	220PF	10%	50V	D013 =>8-719-911-19	DIODE	ISS119			
C011	1-161-315-00	CERAMIC	220PF	10%	50V	D030 =>8-719-911-19	DIODE	ISS119			
C012	1-161-315-00	CERAMIC	220PF	10%	50V	D033 =>8-719-911-19	DIODE	ISS119			
C013	1-161-315-00	CERAMIC	220PF	10%	50V	D034 =>8-719-911-19	DIODE	ISS119			
C014	1-123-254-00	ELECT	10MF		250V	D035 =>8-719-911-19	DIODE	ISS119			
C015	1-102-189-00	CERAMIC	0.0047MF		125V	D038 =>8-719-911-19	DIODE	ISS119			
C015	1-161-748-00	CERAMIC	0.0047MF		125V	D039	8-719-191-26	DIODE	RD9.1E-B3Z		
C016	1-123-356-00	ELECT	10MF	20%	16V	<u>IC</u>					
C017	1-161-319-00	CERAMIC	470PF	10%	50V	IC001=>8-759-150-24	IC	UPD652C024			
C018	1-123-351-00	ELECT	0.47MF	20%	50V	IC031	8-759-157-40	IC	UPC574J		
C031	1-123-355-00	ELECT	4.7MF	20%	50V	IC032	8-757-604-00	IC	CX-760D		
C032	1-161-327-00	CERAMIC	0.0033MF	30%	50V	IC033	8-758-040-00	IC	CX-804		
C033	1-123-355-00	ELECT	4.7MF	20%	50V	IC034	8-757-611-00	IC	CX-761A		
C034	1-161-267-00	CERAMIC	47PF	5%	50V	<u>COIL</u>					
C035	1-108-389-00	MYLAR	0.1MF	10%	100V	L031	1-408-247-00	MICRO INDUCTOR	33MMH		
C036	1-161-270-00	CERAMIC	82PF	5%	50V	L032	1-409-193-00	MICRO INDUCTOR	3.58MHZ TRAP		
C038	1-130-020-00	FILM	0.0015MF	5%	50V	L033	1-407-705-00	MICRO INDUCTOR	100UH		
C039	1-130-018-00	FILM	0.001MF	5%	50V	L034	1-407-687-00	MICRO INDUCTOR	3.3UH		
C040	1-130-018-00	FILM	0.001MF	5%	50V	L035	1-407-705-00	MICRO INDUCTOR	100UH		
C041	1-161-271-00	CERAMIC	100PF	5%	50V	L036	1-408-398-00	MICRO INDUCTOR	1.2UH		
C043	1-123-352-00	ELECT	1MF	20%	50V	L037	1-408-398-00	MICRO INDUCTOR	1.2UH		
C044	1-108-393-00	MYLAR	0.22MF	10%	100V	L039	1-408-454-11	MICRO INDUCTOR	100UH		
C045	1-123-356-00	ELECT	10MF	20%	16V	L040	1-408-454-11	MICRO INDUCTOR	100UH		
C046	1-108-377-00	MYLAR	0.01MF	10%	100V						
C047	1-161-271-00	CERAMIC	100PF	5%	50V						
C049	1-123-318-00	ELECT	33MF	20%	16V						
C050	1-123-318-00	ELECT	33MF	20%	16V						

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CAPACITORS  
• MF :  $\mu\text{F}$ , PF :  $\mu\mu\text{F}$

RESISTORS  
• All resistors are in ohms  
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COILS  
• MMH : mH, UH :  $\mu\text{H}$

KV-1946R

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>			<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>			<u>Remark</u>
<u>CONNECTOR</u>											
ME1	▲:1-560-123-00	PLUG, CONNECTOR (2.5MM)	3P			R012	1-246-521-00	CARBON	100K	1%	1/4W
ME2	▲:1-560-125-00	PLUG, CONNECTOR (2.5MM)	5P			R013	1-246-521-00	CARBON	100K	5%	1/4W
ME3	▲:1-560-123-00	PLUG, CONNECTOR (2.5MM)	3P			R014	1-246-521-00	CARBON	100K	5%	1/4W
ME7	▲:1-508-786-00	2P PLUG (M)				R015	1-246-528-00	CARBON	200K	5%	1/4W
ME8	▲:1-560-126-00	PLUG, CONNECTOR (2.5MM)	6P			R016	1-246-528-00	CARBON	200K	5%	1/4W
ME9	▲:1-560-124-00	PLUG, CONNECTOR (2.5MM)	4P			R017	1-246-528-00	CARBON	200K	5%	1/4W
ME12	▲:1-560-127-00	PLUG, CONNECTOR (2.5MM)	7P			R018	1-246-528-00	CARBON	200K	5%	1/4W
ME13	▲:1-560-129-00	PLUG, CONNECTOR (2.5MM)	9P			R019	1-246-528-00	CARBON	200K	1%	1/4W
<u>TRANSISTOR</u>											
Q001	=>8-729-117-54	TRANSISTOR	2SA1175			R022	1-246-528-00	CARBON	200K	5%	1/4W
Q002	8-729-663-47	TRANSISTOR	2SC1364			R023	1-246-528-00	CARBON	200K	1%	1/4W
Q003	=>8-729-117-54	TRANSISTOR	2SA1175			R024	1-246-528-00	CARBON	200K	1%	1/4W
Q004	8-729-663-47	TRANSISTOR	2SC1364			R025	1-246-490-00	CARBON	5.1K	5%	1/4W
Q005	8-729-663-47	TRANSISTOR	2SC1364			R026	1-246-521-00	CARBON	100K	1%	1/4W
Q006	8-729-663-47	TRANSISTOR	2SC1364			R027	1-246-521-00	CARBON	100K	1%	1/4W
Q007	8-729-663-47	TRANSISTOR	2SC1364			R028	1-246-521-00	CARBON	100K	5%	1/4W
Q008	8-729-663-47	TRANSISTOR	2SC1364			R029	1-246-521-00	CARBON	100K	5%	1/4W
Q009	8-729-173-37	TRANSISTOR	2SA733A			R030	1-246-528-00	CARBON	200K	5%	1/4W
Q031	8-729-663-47	TRANSISTOR	2SC1364			R031	1-246-509-00	CARBON	33K	5%	1/4W
Q032	8-729-663-47	TRANSISTOR	2SC1364			R032	1-246-487-00	CARBON	3.9K	5%	1/4W
Q033	=>8-729-117-54	TRANSISTOR	2SA1175			R033	1-246-485-00	CARBON	3.3K	5%	1/4W
Q034	8-729-663-47	TRANSISTOR	2SC1364			R034	1-246-485-00	CARBON	3.3K	5%	1/4W
Q035	=>8-729-117-54	TRANSISTOR	2SA1175			R035	1-246-459-00	CARBON	270	5%	1/4W
Q036	8-729-139-04	TRANSISTOR	2N3904			R036	1-246-481-00	CARBON	2.2K	5%	1/4W
Q038	=>8-729-117-54	TRANSISTOR	2SA1175			R037	1-246-497-00	CARBON	10K	5%	1/4W
Q039	=>8-729-117-54	TRANSISTOR	2SA1175			R038	1-246-497-00	CARBON	10K	5%	1/4W
Q040	=>8-729-117-54	TRANSISTOR	2SA1175			R039	1-246-497-00	CARBON	10K	5%	1/4W
Q041	8-729-663-47	TRANSISTOR	2SC1364			R040	1-246-481-00	CARBON	2.2K	5%	1/4W
Q043	8-729-663-47	TRANSISTOR	2SC1364			R042	1-246-497-00	CARBON	10K	5%	1/4W
Q044	8-729-663-47	TRANSISTOR	2SC1364			R043	1-246-485-00	CARBON	3.3K	5%	1/4W
Q045	=>8-729-117-54	TRANSISTOR	2SA1175			R044	1-246-521-00	CARBON	100K	5%	1/4W
Q047	8-729-663-47	TRANSISTOR	2SC1364			R045	1-246-533-00	CARBON	330K	5%	1/4W
Q048	8-729-663-47	TRANSISTOR	2SC1364			R046	1-246-509-00	CARBON	33K	5%	1/4W
Q050	8-729-309-06	TRANSISTOR	2SC1890A			R047	1-246-497-00	CARBON	10K	5%	1/4W
Q051	8-729-213-11	TRANSISTOR	2SC2230A			R048	1-246-505-00	CARBON	22K	5%	1/4W
Q052	8-729-663-47	TRANSISTOR	2SC1364			R049	1-246-497-00	CARBON	10K	5%	1/4W
Q053	8-729-663-47	TRANSISTOR	2SC1364			R050	1-246-497-00	CARBON	10K	5%	1/4W
Q054	8-729-663-47	TRANSISTOR	2SC1364			R051	1-206-696-00	METAL	22K	5%	2W
<u>RESISTOR</u>											
R001	1-246-532-00	CARBON	300K	5%	1/4W	R052	1-246-489-00	CARBON	4.7K	5%	1/4W
R002	1-246-531-00	CARBON	270K	5%	1/4W	R053	1-246-509-00	CARBON	33K	5%	1/4W
R003	1-246-493-00	CARBON	6.8K	5%	1/4W	R055	1-246-509-00	CARBON	33K	5%	1/4W
R004	1-246-490-00	CARBON	5.1K	5%	1/4W	R056	1-246-509-00	CARBON	33K	5%	1/4W
R005	1-246-532-00	CARBON	300K	5%	1/4W	R057	1-246-535-00	CARBON	390K	5%	1/4W
R006	1-246-521-00	CARBON	100K	5%	1/4W	R058	1-246-521-00	CARBON	100K	5%	1/4W
R007	1-246-521-00	CARBON	100K	5%	1/4W	R059	1-246-461-00	CARBON	330	5%	1/4W
R008	1-246-545-00	CARBON	1M	5%	1/4W	R060	1-246-489-00	CARBON	4.7K	5%	1/4W
R010	1-246-479-00	CARBON	1.8K	5%	1/4W	R061	1-246-489-00	CARBON	4.7K	5%	1/4W
R011	1-246-472-00	CARBON	910	5%	1/4W	R062	1-246-505-00	CARBON	22K	5%	1/4W
						R063	1-246-489-00	CARBON	4.7K	5%	1/4W
						R064	1-246-521-00	CARBON	100K	5%	1/4W
						R065	1-246-521-00	CARBON	100K	5%	1/4W
						R066	1-246-505-00	CARBON	22K	5%	1/4W

## NOTE:

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

• => Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

• Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS  
• MF :  $\mu\text{F}$ , PF :  $\mu\mu\text{F}$

RESISTORS  
• All resistors are in ohms  
• F : nonflammable

COILS  
• MMH : mH, UH :  $\mu\text{H}$

**KV-1946R**

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>			<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>			<u>Remark</u>	
R067	1-246-481-00	CARBON	2.2K	5%	1/4W		R131	1-246-493-00	CARBON	6.8K	5%	1/4W
R068	1-246-473-00	CARBON	1K	5%	1/4W		R132	1-246-504-00	CARBON	20K	5%	1/4W
R069	1-246-481-00	CARBON	2.2K	5%	1/4W		R133	1-246-521-00	CARBON	100K	5%	1/4W
R070	1-246-497-00	CARBON	10K	5%	1/4W		R134	1-246-488-00	CARBON	4.3K	5%	1/4W
R071	1-246-505-00	CARBON	22K	5%	1/4W		R136	1-246-483-00	CARBON	2.7K	5%	1/4W
R072	1-246-497-00	CARBON	10K	5%	1/4W		R145	1-246-521-00	CARBON	100K	5%	1/4W
R073	1-246-473-00	CARBON	1K	5%	1/4W		R147	1-246-537-00	CARBON	470K	5%	1/4W
R074	1-246-529-00	CARBON	220K	5%	1/4W		R148	1-246-519-00	CARBON	82K	5%	1/4W
R075	1-246-497-00	CARBON	10K	5%	1/4W		R149	1-246-516-00	CARBON	62K	5%	1/4W
R076	1-246-473-00	CARBON	1K	5%	1/4W		R150	1-246-521-00	CARBON	100K	5%	1/4W
R077	1-246-497-00	CARBON	10K	5%	1/4W		R151	1-246-521-00	CARBON	100K	5%	1/4W
R078	1-246-497-00	CARBON	10K	5%	1/4W		R152	1-246-537-00	CARBON	470K	5%	1/4W
R079	1-246-497-00	CARBON	10K	5%	1/4W		R153	1-246-473-00	CARBON	1K	5%	1/4W
R080	1-246-497-00	CARBON	10K	5%	1/4W		R154	1-246-473-00	CARBON	1K	5%	1/4W
R081	1-246-497-00	CARBON	10K	5%	1/4W		R156	1-246-521-00	CARBON	100K	5%	1/4W
R082	1-246-497-00	CARBON	10K	5%	1/4W	F	R160	1-246-509-00	CARBON	33K	5%	1/4W
R083	1-246-519-00	CARBON	82K	5%	1/4W		R161	1-246-521-00	CARBON	100K	5%	1/4W
R084	1-246-497-00	CARBON	10K	5%	1/4W							
R085	1-214-596-00	METAL	39K	5%	2W							
R086	1-244-914-00	CARBON	51K	5%	1/2W							
R087	1-246-529-00	CARBON	220K	5%	1/4W							
R088	1-246-473-00	CARBON	1K	5%	1/4W							
R089	1-246-473-00	CARBON	1K	5%	1/4W							
R092	1-246-499-00	CARBON	12K	5%	1/4W							
R094	1-246-507-00	CARBON	27K	5%	1/4W							
R095	1-246-519-00	CARBON	82K	5%	1/4W							
R096	1-246-497-00	CARBON	10K	5%	1/4W							
R097	1-246-513-00	CARBON	47K	5%	1/4W							
R098	1-246-473-00	CARBON	1K	5%	1/4W							
R100	1-246-537-00	CARBON	470K	5%	1/4W							
R101	1-246-509-00	CARBON	33K	5%	1/4W							
R102	1-246-497-00	CARBON	10K	5%	1/4W							
R103	1-246-481-00	CARBON	2.2K	5%	1/4W							
R104	1-246-509-00	CARBON	33K	5%	1/4W							
R105	1-246-509-00	CARBON	33K	5%	1/4W							
R106	1-246-516-00	CARBON	62K	5%	1/4W							
R107	1-246-497-00	CARBON	10K	5%	1/4W							
R108	1-246-481-00	CARBON	2.2K	5%	1/4W							
R109	1-246-481-00	CARBON	2.2K	5%	1/4W							
R110	1-246-497-00	CARBON	10K	5%	1/4W							
R111	1-246-509-00	CARBON	33K	5%	1/4W							
R112	1-246-525-00	CARBON	150K	5%	1/4W							
R118	1-246-473-00	CARBON	1K	5%	1/4W							
R119	1-246-509-00	CARBON	33K	5%	1/4W							
R120	1-246-473-00	CARBON	1K	5%	1/4W							
R121	1-206-664-00	METAL	1K	5%	2W	F						
R122	1-205-662-00	WIREWOUND	7.5K	5%	7W							
R123	1-213-131-00	METAL	100	5%	1W	F						
R124	1-246-497-00	CARBON	10K	5%	1/4W							
R125	1-246-465-00	CARBON	470	5%	1/4W							
R127	1-246-516-00	CARBON	62K	5%	1/4W							
R128	1-246-449-00	CARBON	100	5%	1/4W							
R129	1-246-473-00	CARBON	1K	5%	1/4W							

**NOTE:**

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

• **=>**: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

• Items marked " **\*** " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

**CAPACITORS**

• MF :  $\mu\text{F}$ , PF :  $\mu\mu\text{F}$

**RESISTORS**

• All resistors are in ohms

**COILS**

• MMH : mH, UH :  $\mu\text{H}$

C S

KV-1946R

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>				<u>Remark</u>	<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>				<u>Remark</u>
<u>RESISTOR</u>													
R701	1-246-455-00	CARBON	180	5%	1/4W		Q101	8-729-663-47	TRANSISTOR	2SC1364			
R702	1-246-489-00	CARBON	4.7K	5%	1/4W								
R703	1-206-692-00	METAL	15K	5%	2W	F							
R704	1-246-489-00	CARBON	4.7K	5%	1/4W								
R705	1-246-455-00	CARBON	180	5%	1/4W								
R706	1-206-692-00	METAL	15K	5%	2W	F							
R707	1-246-459-00	CARBON	270	5%	1/4W		R101	1-246-509-00	CARBON	33K	5%	1/4W	
R708	1-246-489-00	CARBON	4.7K	5%	1/4W		R102	1-246-533-00	CARBON	330K	5%	1/4W	
R709	1-206-692-00	METAL	15K	5%	2W	F	R103	1-246-481-00	CARBON	2.2K	5%	1/4W	
R710	1-202-824-00	COMPOSITION	3.3K		1/2W		R104	1-246-465-00	CARBON	470	5%	1/4W	
R711	1-202-837-51	COMPOSITION	82K		1/2W								
R713	1-202-824-00	COMPOSITION	3.3K		1/2W								
R714	1-202-814-51	COMPOSITION	33K		1/2W								
R715	1-202-841-51	COMPOSITION	180K		1/2W								
R716	1-202-824-00	COMPOSITION	3.3K		1/2W								
R717	1-202-719-00	COMPOSITION	1M	10%	1/2W								
R718	1-202-549-00	COMPOSITION	100	10%	1/2W								
R719	1-202-842-51	COMPOSITION	220K		1/2W								
R720	1-202-846-51	COMPOSITION	470K		1/2W								
R721	1-202-848-51	COMPOSITION	680K		1/2W								
<u>VARIABLE RESISTOR</u>													
RV701	1-222-518-31	RES, ADJ, CARBON	4.7K										
RV702	1-226-105-00	RES, ADJ, CARBON	220										
RV703	1-222-518-31	RES, ADJ, CARBON	4.7K										
RV704	1-226-105-00	RES, ADJ, CARBON	220										
RV705	1-222-518-31	RES, ADJ, CARBON	4.7K										
RV706	1-226-063-00	RES, ADJ, CARBON	2.2M										
RV707	1-226-114-00	RES, ADJ, METAL GLAZE	2.2M										
<u>SPARK GAP</u>													
SG701	1-519-063-XX	DISCHARGING GAP											
SG702	1-519-063-XX	DISCHARGING GAP											
SG703	1-519-063-XX	DISCHARGING GAP											
SG704	1-519-063-XX	DISCHARGING GAP											
SG705	1-519-063-XX	DISCHARGING GAP											
SG706	1-519-063-XX	DISCHARGING GAP											
<u>CAPACITOR</u>													
C101	1-123-317-00	ELECT	22MF	20%	16V								
C102	1-123-329-00	ELECT	10MF	20%	25V								
C103	1-123-329-00	ELECT	10MF	20%	25V								
C104	1-123-318-00	ELECT	33MF	20%	16V								
C105	1-123-318-00	ELECT	33MF	20%	16V								
C106	1-108-389-00	MYLAR	0.1MF	10%	100V								
C108	1-108-385-00	MYLAR	0.047MF	10%	100V								
C109	1-108-387-00	MYLAR	0.068MF	10%	100V								
<u>CAPACITORS</u>													
<u>RESISTORS</u>													
<u>COILS</u>													
* All variable and adjustable resistors have characteristic curve B, unless otherwise noted.													
• MF : $\mu\text{F}$ , PF : $\mu\mu\text{F}$													
• RESISTORS													
• => Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.													
• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.													
• F : nonflammable													
• PROTECTOR ASSY,CRT NECK													
• C901 A.1-102-327-00 CAP, CERAMIC 330PF 1.5KV													
• J901A 1-507-372-00 JM-35 DOUBLE JACK													
• J901B 1-507-372-00 JM-35 DOUBLE JACK													
• L901 A.1-425-901-22 COIL, ERASE													
• L902 A.1-425-901-22 COIL, ERASE													

NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

• => Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

• Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS

RESISTORS

COILS

• All resistors are in ohms

• MMH : mH, UH :  $\mu\text{H}$

**KV-1946R**

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>
L903	1-407-365-00	COIL, CHOKE (HIGH FREQUENCY)	
L904	1-408-349-00	COIL, CHOKE	
L905 $\Delta$	1-451-182-00	DEFLECTION YOKE (SY108A)	
Q901	8-729-287-00	TRANSISTOR 2SD870	
R901 $\Delta$	1-217-605-00	RES, WIREWOUND 2.2 (10W)	
R902	1-205-608-00	RES, CEMENT 180 (20W)	
S901	1-553-262-00	SWITCH, PUSH (POWER SWITCH)	
SP901	1-502-766-00	SPEAKER	
V901 $\Delta$	8-738-705-05	PICTURE TUBE 520RB22	

\*\*\*\*\*

## ACCESSORIES AND PACKING MATERIALS

\*\*\*\*\*

<u>Part No</u>	<u>Description</u>	<u>Remark</u>
Y-2063-103-0	AN-15 LOOP ANTENNA	
Y-2201-611-0	OVERALL ASSY, AN-16	
1-504-034-32	EARPHONE, MAGNETIC (ME-20B)	
1-528-068-11	DRY BATTERY, CARBON-ZINC	
3-701-620-00	BAG, POLYETHYLENE (RM703)	
4-329-149-01	LABEL (B), INDICATOR	
4-349-950-00	BAG, POLYETHYLENE	
4-350-956-00	CUSHION (LEFT UPPER)	
4-350-957-00	CUSHION (RIGHT UPPER)	
4-350-958-00	CUSHION (LEFT LOWER)	
4-350-959-00	CUSHION (RIGHT LOWER)	
4-350-982-00	INDIVIDUAL CARTON	
4-491-213-21	INSTRUCTION	
4-491-515-00	SCHEMATIC DIAGRAM (B2) (SONAM)	
4-493-550-21	MANUAL, INSTRUCTION	
7-822-282-01	IBM, CARD (WHITE)	
7-822-282-02	IBM, CARD (PINK)	
7-822-282-03	IBM, CARD (YELLOW)	

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

•  $\Rightarrow$ : Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

• Items marked "  $\Delta$  " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

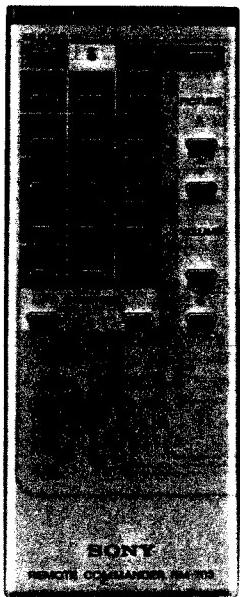
• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS  
• MF :  $\mu$ F, PF :  $\mu\mu$ F

RESISTORS  
• All resistors are in ohms  
• F : nonflammable

COILS  
• MMH : mH, UH :  $\mu$ H

# **RM-703**



# REMOTE COMMANDER

SPECIFICATIONS

<b>Remote control system:</b>	Infrared control
<b>Power requirements:</b>	3Vdc (IEC Battery Designation R6)
<b>Dimensions:</b>	Approx. 60(w) x 20(h) x 150(d) mm $2\frac{3}{8}$ (w) x $\frac{7}{8}$ (h) x 6(d) inches
<b>Weight:</b>	Approx. 140 g (4.9 oz)
<b>Accessories supplied:</b>	Battery size "A" 2 pcs.

A

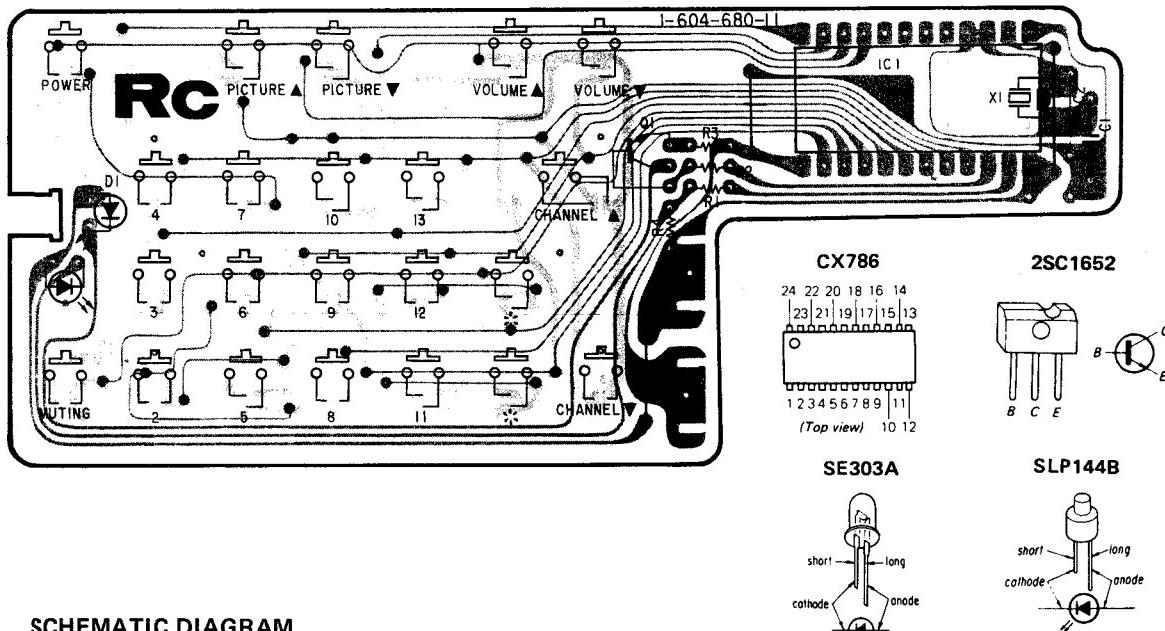
B

C

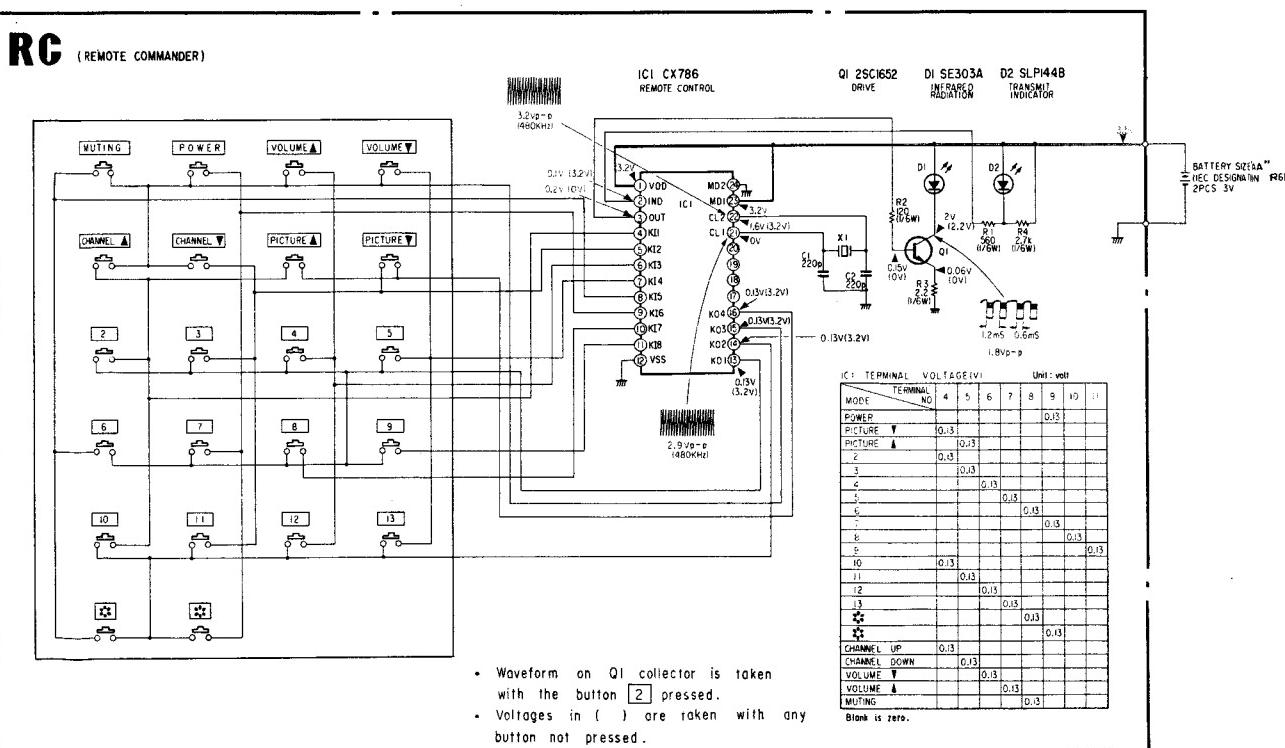
D

## 1. MOUNTING DIAGRAMS

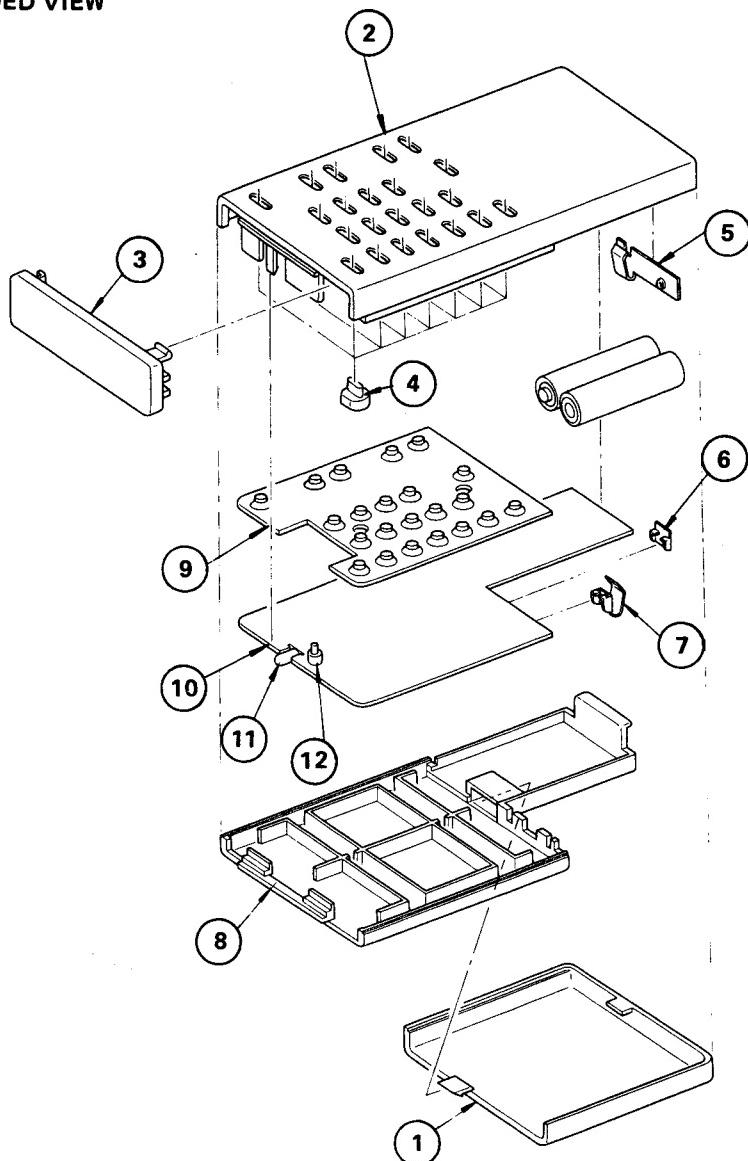
— Conductor Side —



## 2. SCHEMATIC DIAGRAM



- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  
50 $\mu\text{F}$  or less are not indicated except for electrolytics.  
 $\mu\text{F}$  :  $\mu\text{F}$
- All resistors are in ohms.  $1\text{W}$  unless otherwise noted.  
k $\Omega$  :  $1000\Omega$ , M $\Omega$  :  $1000\text{k}\Omega$
- [ ] : panel designation.

**A****B****C****3. EXPLODED VIEW**

No.	Part No	Description	Remark	No.	Part No	Description	Remark
1	4-350-931-00	COVER, BATTERY		7	4-350-924-00	TERMINAL (B), BATTERY	
2	X-4350-906-0	CASE ASSY, UPPER		8	4-350-933-00	CASE, LOWER	
3	4-350-929-00	PLATE, FROSTED		9	4-350-928-00	SHEET, RUBBER	
4	3-706-272-11	KEY TOP		10	1-604-680-00	PC BOARD, RC	
5	4-350-925-00	TERMINAL (C), BATTERY		11	8-719-193-03	DIODE SE303AX	
6	4-350-923-00	TERMINAL (A), BATTERY		12	8-719-901-44	DIODE SLP144B	

## NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- As to the part numbered with E-, refer to the electrical parts list.
- Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

**RC****4. ELECTRICAL PARTS LIST**

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>
	●:1-604-680-00	RC BOARD *****	
<u>CAPACITOR</u>			
C1	1-161-315-00	CAP, CERAMIC 220PF B	
<u>DIODE</u>			
D1	8-719-193-03	DIODE SE303AX	
D2	3-719-901-44	DIODE SLP144B	
<u>IC</u>			
IC1	8-759-907-86	IC CX-786	
<u>TRANSISTOR</u>			
Q1	=>8-729-967-32	TRANSISTOR 2SC2673	
<u>RESISTOR</u>			
R1	1-246-780-00	RES, CARBON 560	1/6W
R2	1-246-772-00	RES, CARBON 120	1/6W
R3	1-246-751-00	RES, CARBON 2.2	1/6W
R4	1-246-788-00	RES, CARBON 2.7K	1/6W
<u>CRYSTAL</u>			
X1	1-527-476-00	OSCILLATOR, CERAMIC	

## NOTE:

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

=>: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Items marked "●" are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these items.

CAPACITORS  
• MF :  $\mu$ F, PF :  $\mu\mu$ F

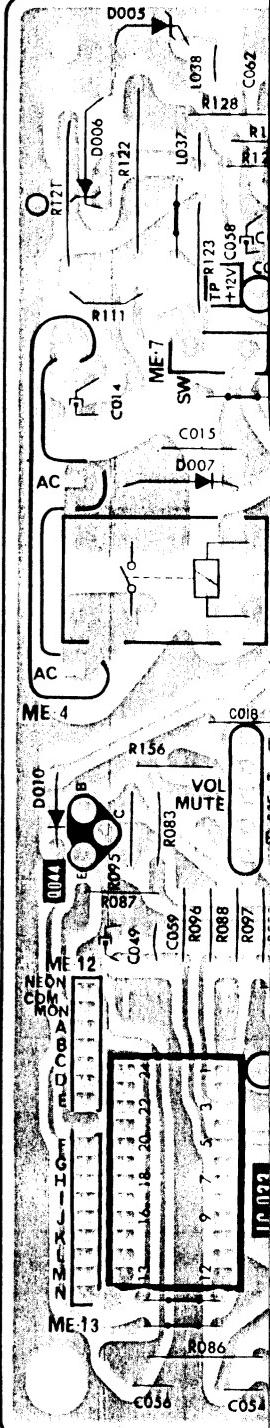
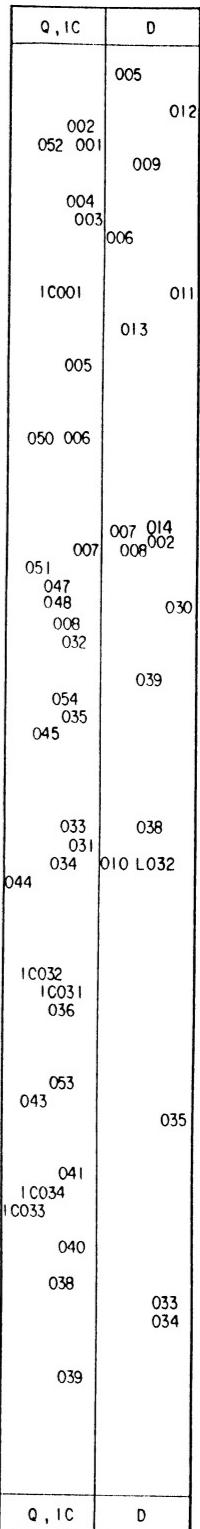
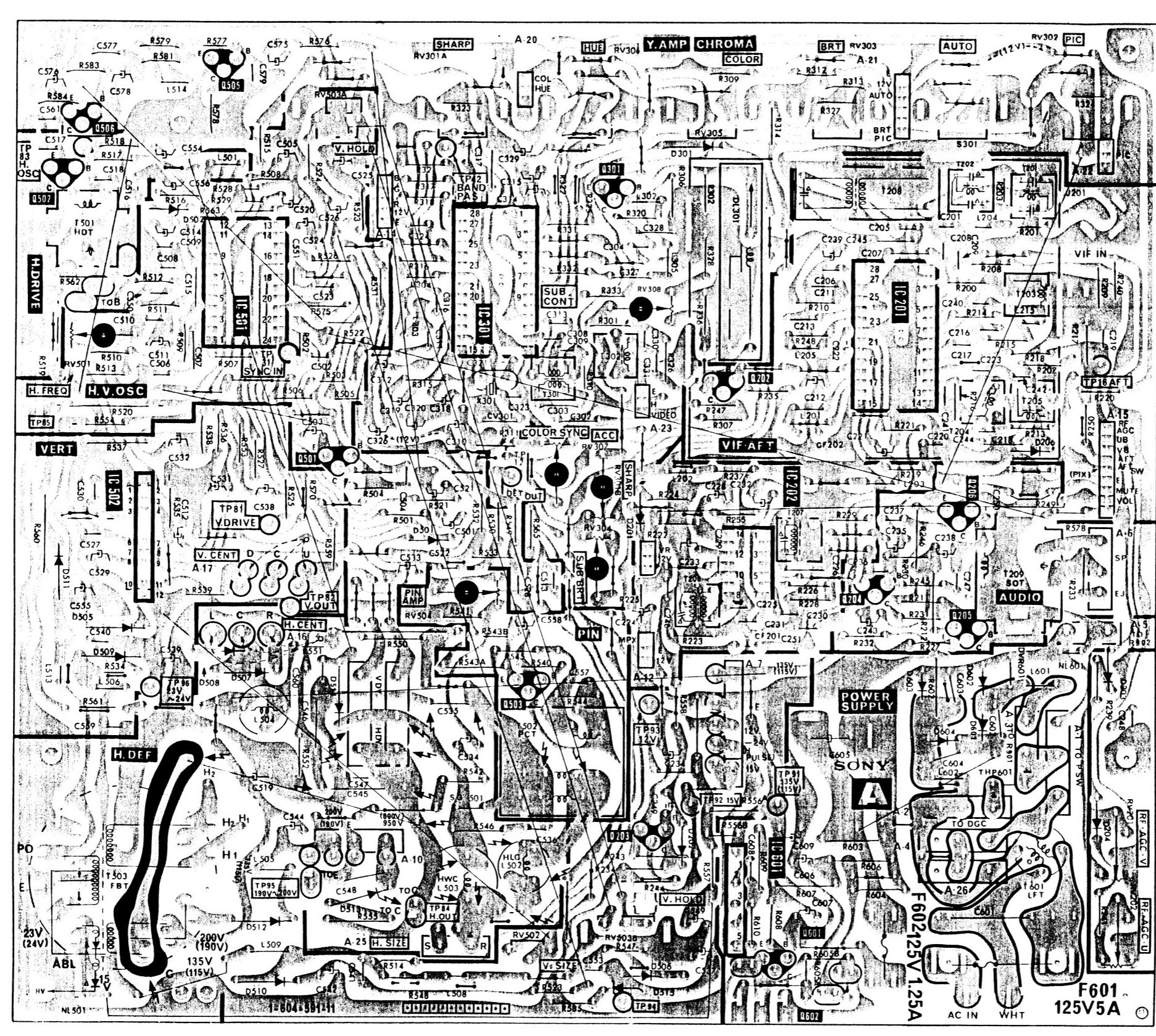
RESISTORS  
• All resistors are in ohms  
• F : nonflammable

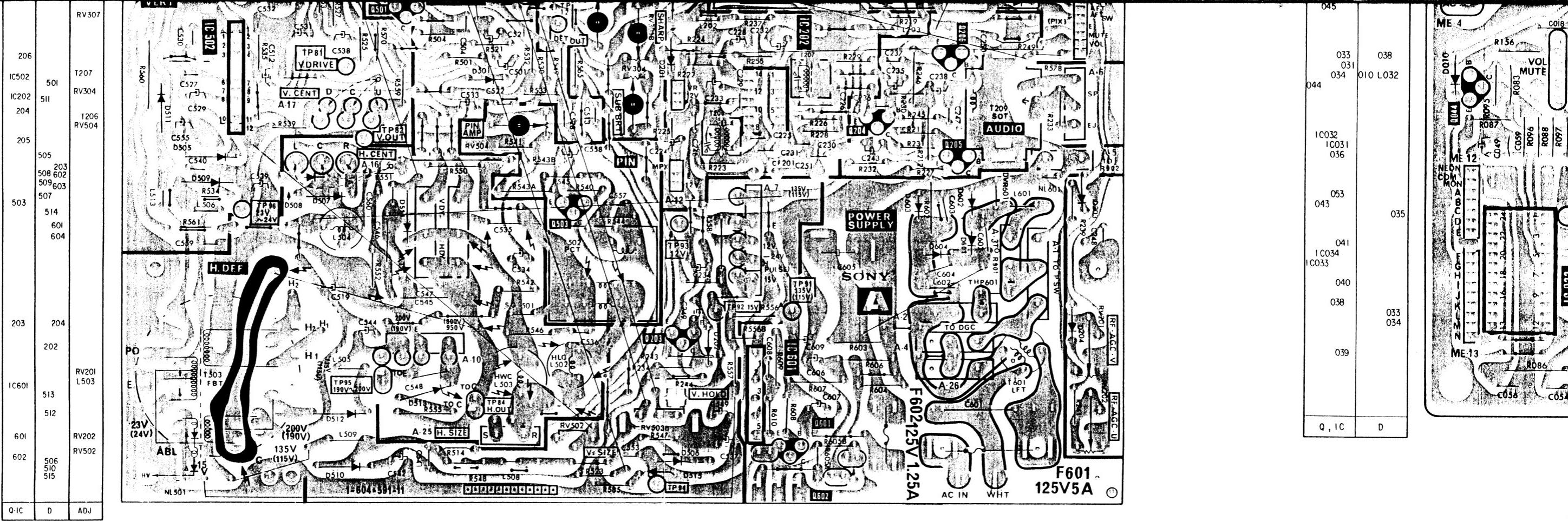
CIRCUITS  
• MMH : mH, UH :  $\mu$ H

## **MOUNTING DIAGRAM**

**A** VIF, SIF, AF OUT  
CHROMA, Y. AMP  
H DEF, V DEF  
POWER SUPPLY

[ REMOTE CONTROL  
TUNING CONTROL  
MEMORY, NEON DRIVE  
BAND SWITCH ]



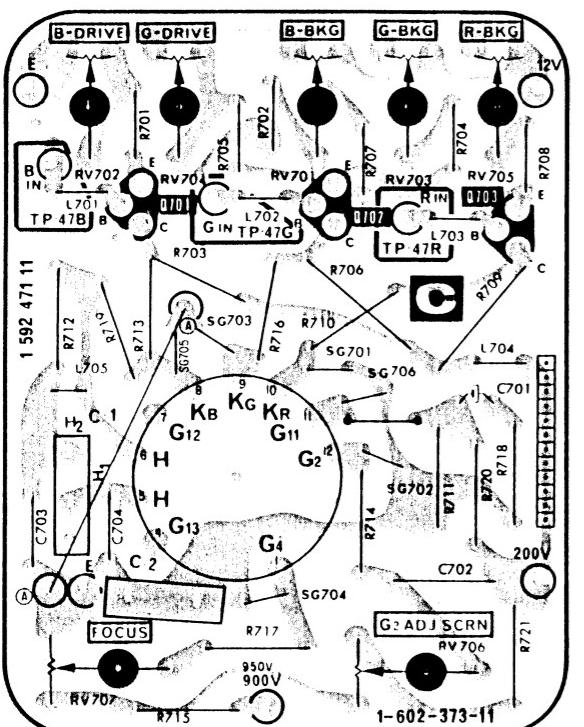


**C** [R-G-B OUT]

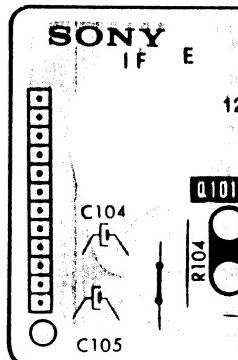
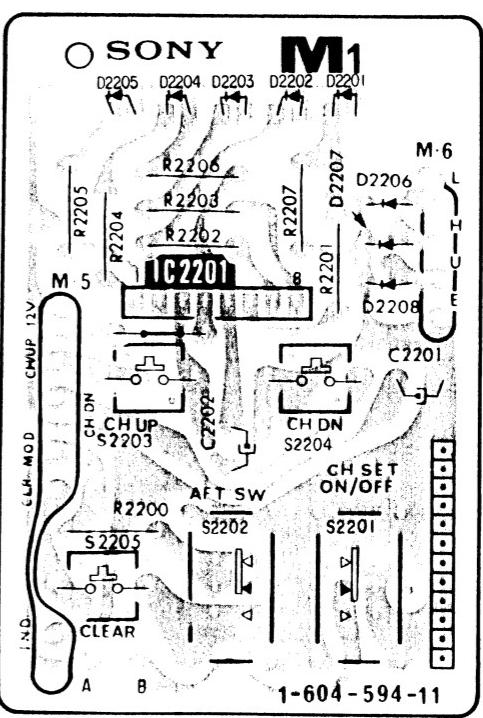
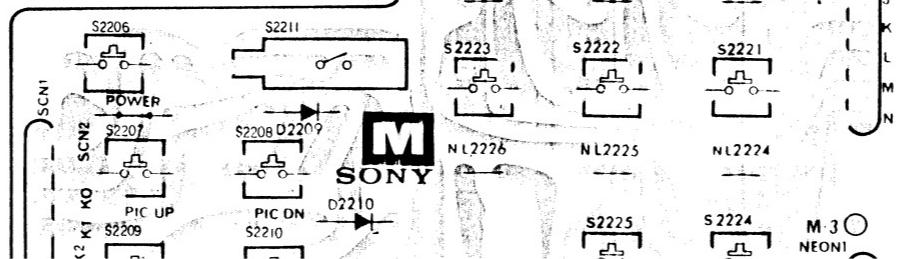
**M** [CHANNEL SELECT  
CUSTOMER CONTROL]

**M1** [CHANNEL SET]

**S** [TUNER  
ACTIVE FILTER]



MC-Service



4

5

6

7

8

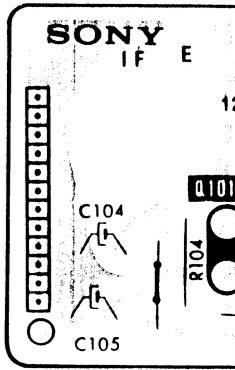
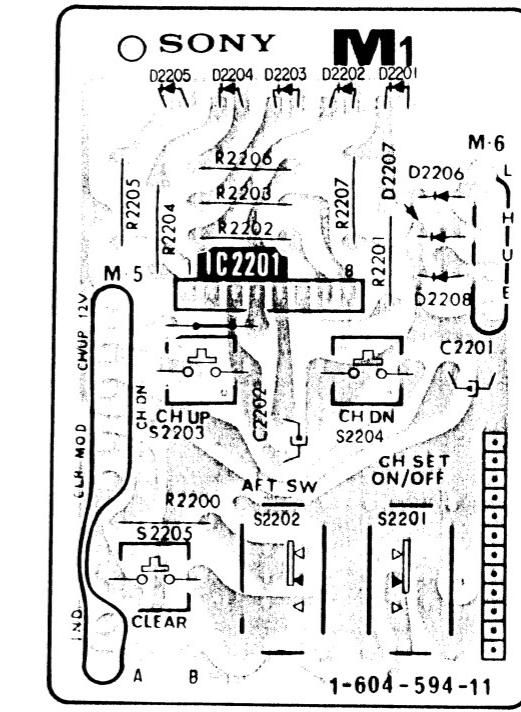
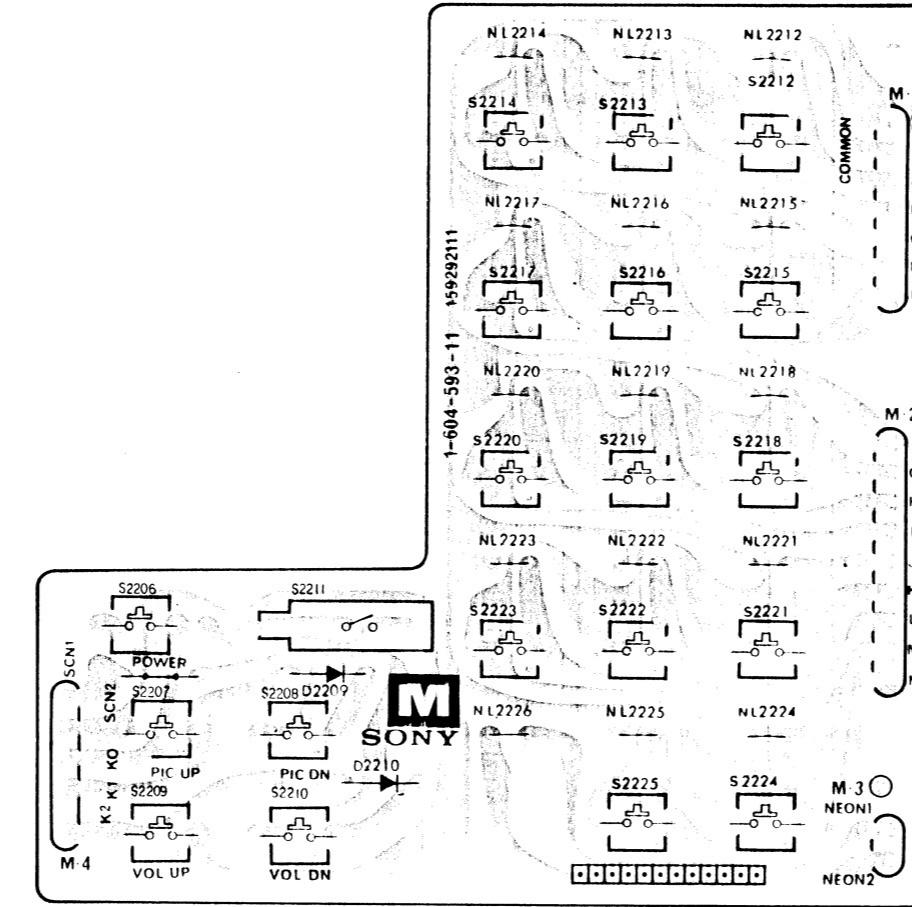
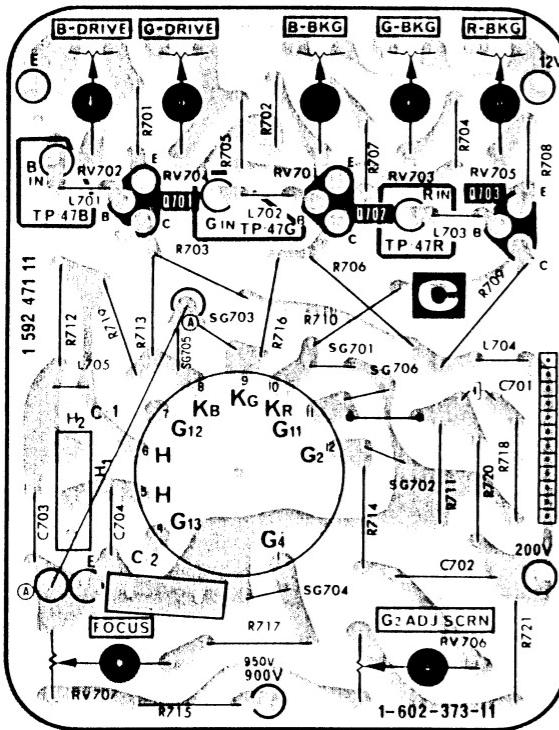
9

C [R.G.B OUT]

**M** CHANNEL SELECT  
CUSTOMER CONTROL

M1 [CHANNEL SET]

**S** [TUNER  
ACTIVE FILTER]



H

I

J

K

L

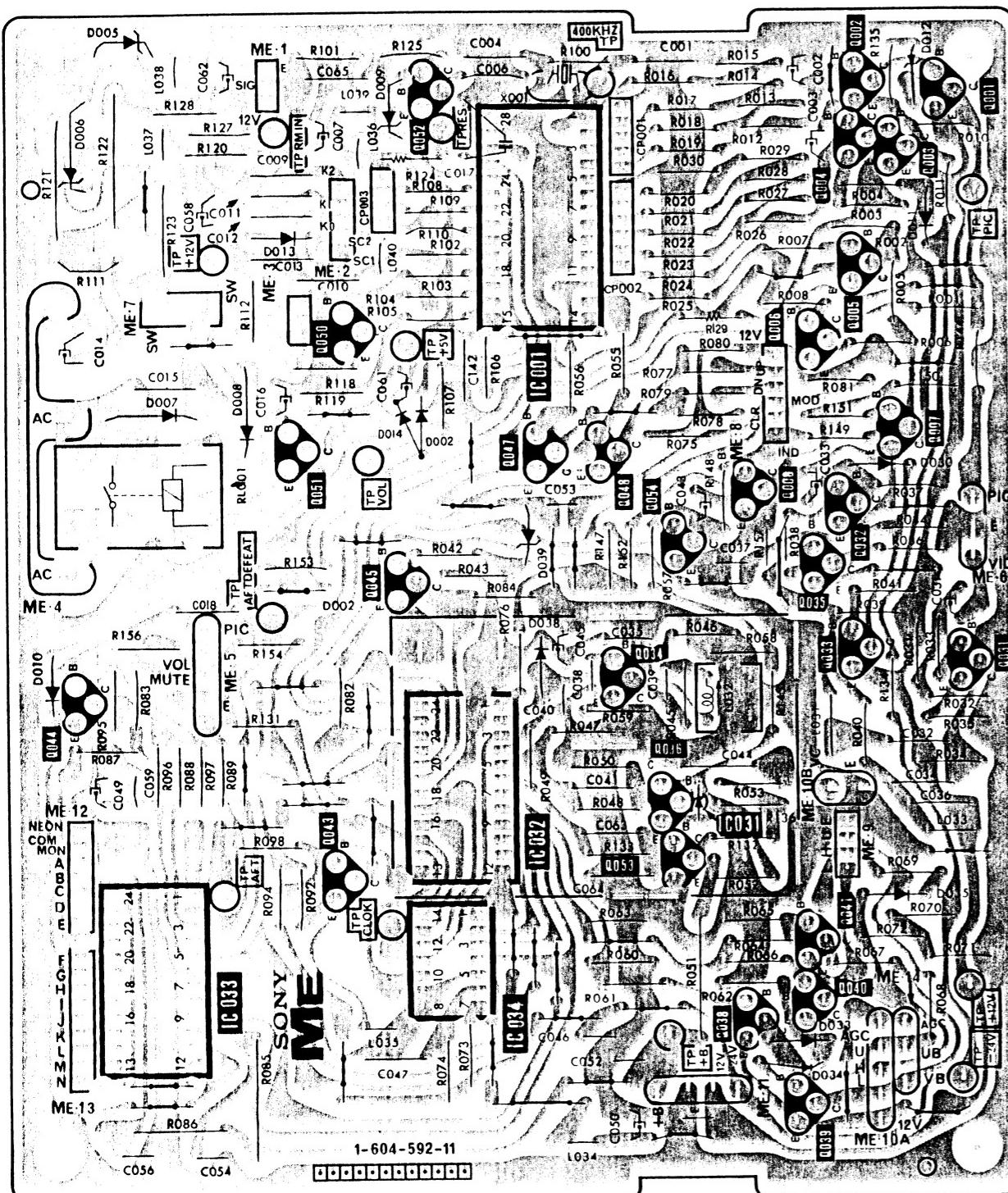
M

N

O

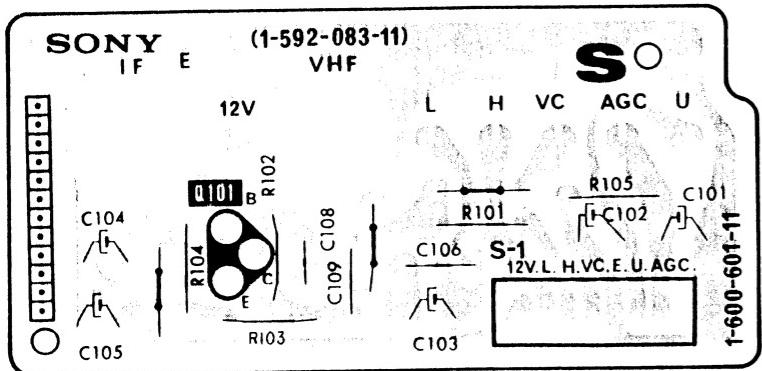
P

NTROL  
NTROL  
EON DRIVE  
CH

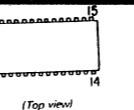
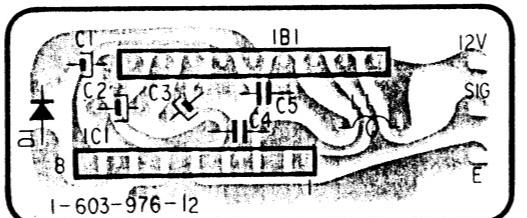




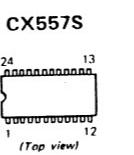
**S** [TUNER  
ACTIVE FILTER]



**N** [DETECTOR  
INF AMP]



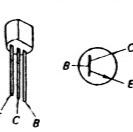
(Marking side view)



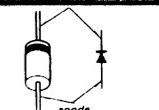
CX557S  
 $\mu$ PC1373H

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2SC1061  
2SC1419



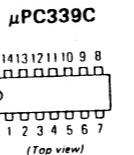
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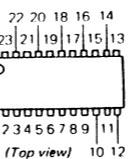
PH302A

1 2 3 4 5 6 7 8

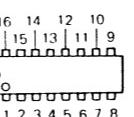
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CX843  
 $\mu$ PC339C



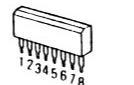
CX786



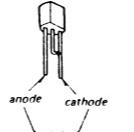
CX804  
CX760D



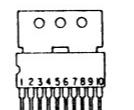
M61903L



$\mu$ PC574J



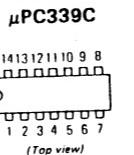
$\mu$ PC1358H



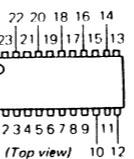
letter side

1 2 3 4 5 6 7 8

2SA733  
2SA893A



DM-4

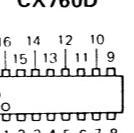


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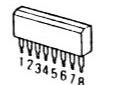
1 2 3 4 5 6 7 8

10 12

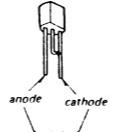
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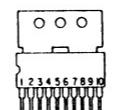
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2SD669A



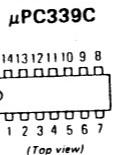
2SB649A



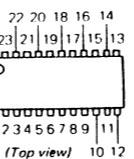
letter side

1 2 3 4 5 6 7 8

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2SC1419



2SC2610BK

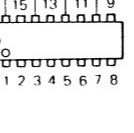


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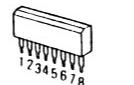
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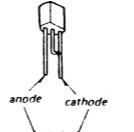
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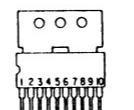
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2SA1175



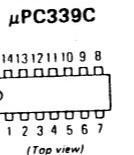
2SD774



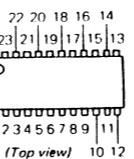
letter side

1 2 3 4 5 6 7 8

2SC1061  
2SC1419



2SC2610BK

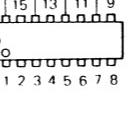


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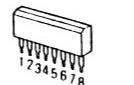
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10 12

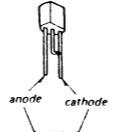
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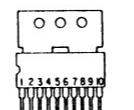
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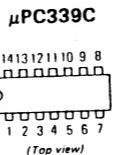
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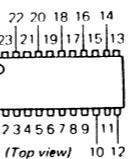
letter side

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2SC1419



2SC2610BK

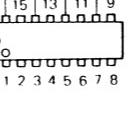


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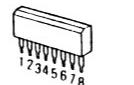
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10 12

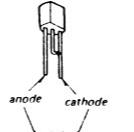
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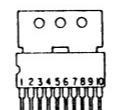
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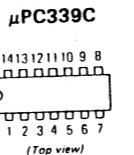
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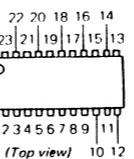
letter side

1 2 3 4 5 6 7 8

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2SC1419



2SC2610BK

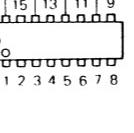


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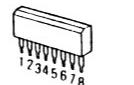
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10 12

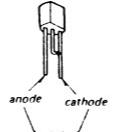
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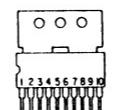
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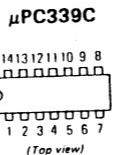
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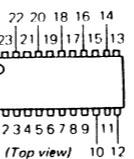
letter side

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2SC1419



2SC2610BK

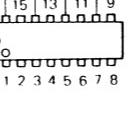


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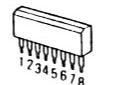
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10 12

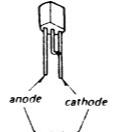
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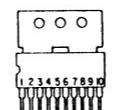
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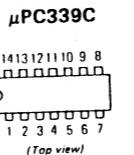
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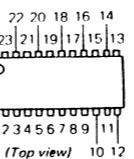
letter side

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2SC1419



2SC2610BK

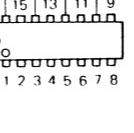


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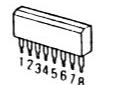
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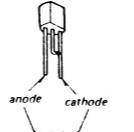
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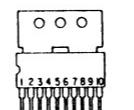
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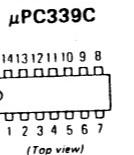
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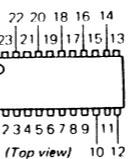
letter side

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2SC1419



2SC2610BK

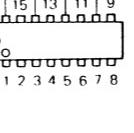


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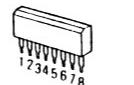
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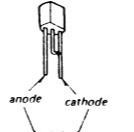
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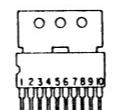
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2SA1175



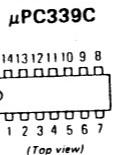
2SD774



letter side

1 2 3 4 5 6 7 8

2SC1061  
2SC1419



# SONY TRINITRON® COLOR TV

## KV-1946R/RM-703

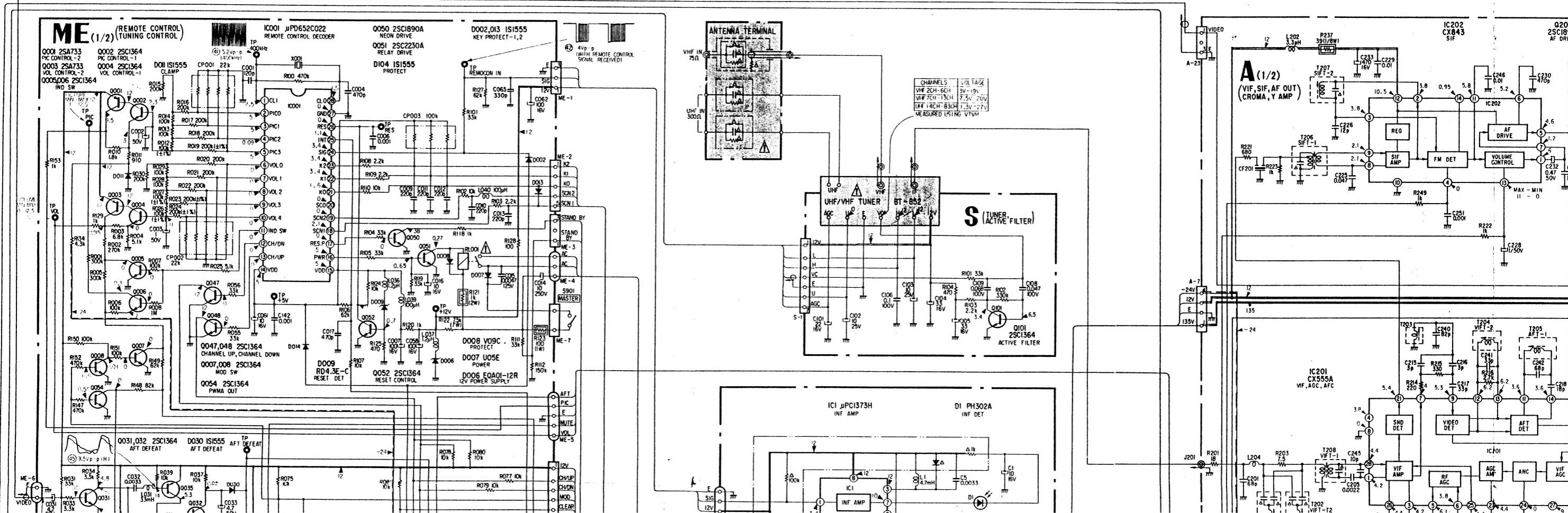
US Model

Chassis No. : SCC-342A-A

### SCHEMATIC DIAGRAM

A | B | C | D | E | F | G | H

MC-Service



### WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.  
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

### SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

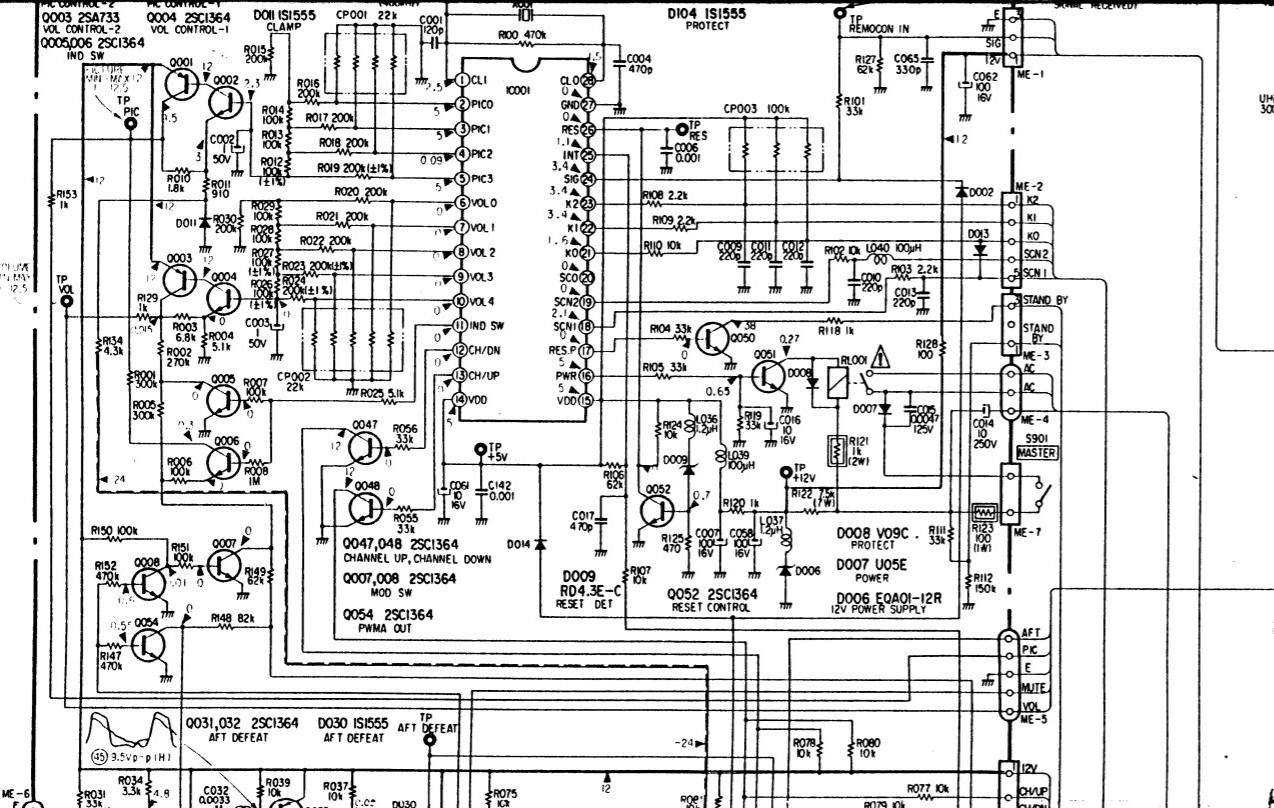
- All mounting diagrams are viewed from conductor side.
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $50\text{V}$  or less are not indicated except for electrolytics.  $\text{pF} : \mu\text{F}$
- All resistors are in ohms,  $\frac{1}{4}\text{W}$  unless otherwise noted.  $\text{k}\Omega : 1000\Omega$ ,  $\text{M}\Omega : 1000\text{k}\Omega$
- : nonflammable resistor.
- : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by in this manual have been carefully factory selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R563 adjustment on page 16).

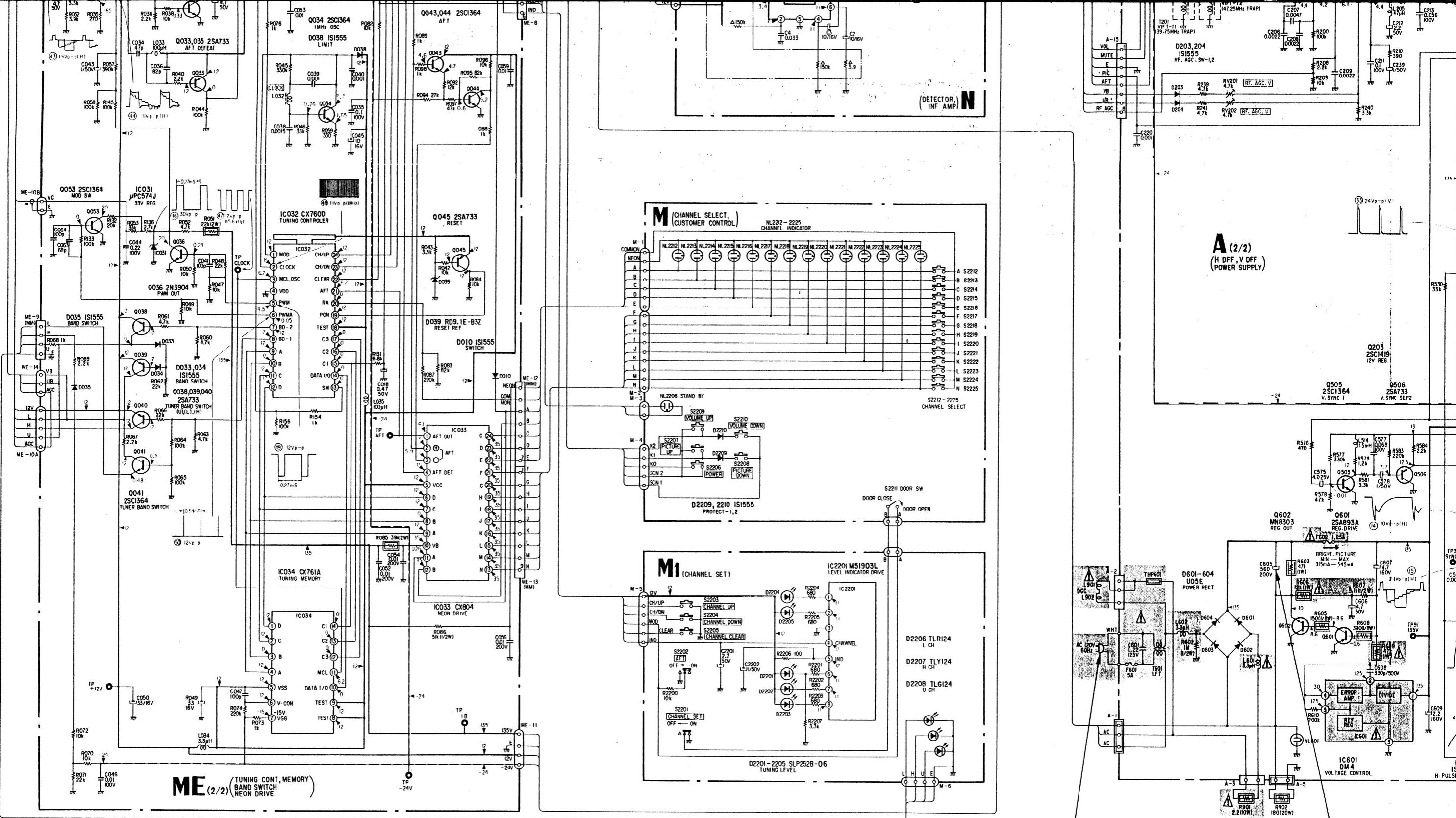
When replacing the part in below table, be sure to perform the related adjustment.

KV-1946R

Part replaced (  )	Adjustment (  )
C505, D502, IC501, R508, R528, R529, R563	R563 adjustment

- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 20,000-ohm-per-volt VOM.
- : adjustment for repair.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- Voltages on ME and S board are taken with set selected to CH-A (VHF HIGH) position.
- : B+ bus.
- : B- bus.

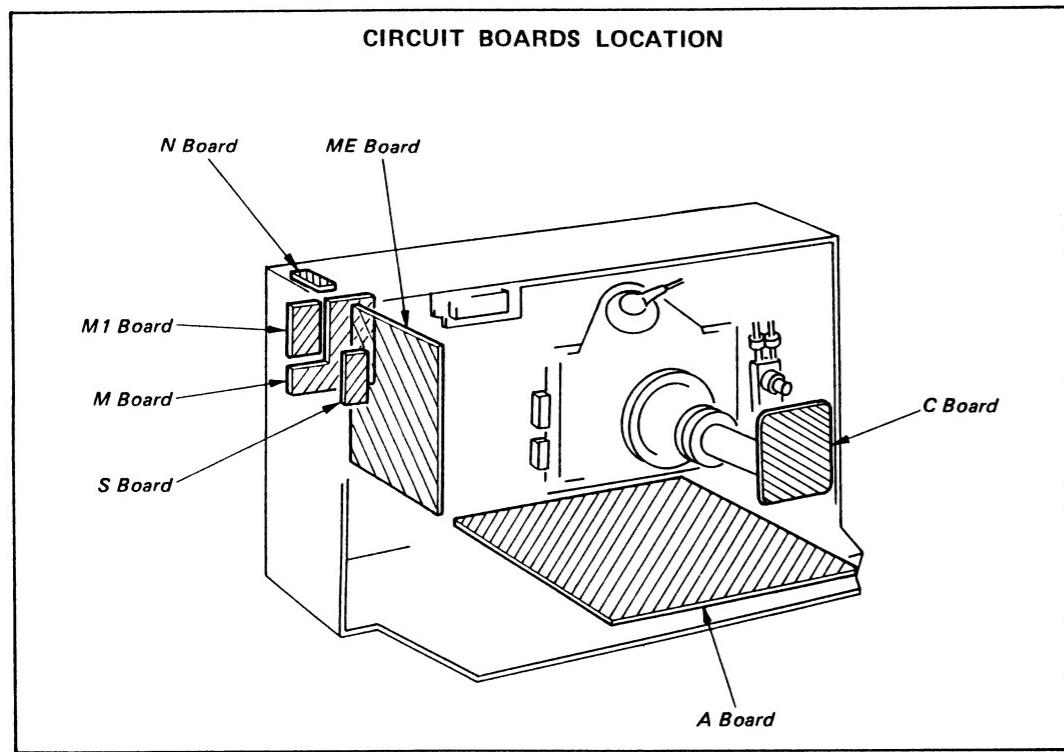




## *Service*

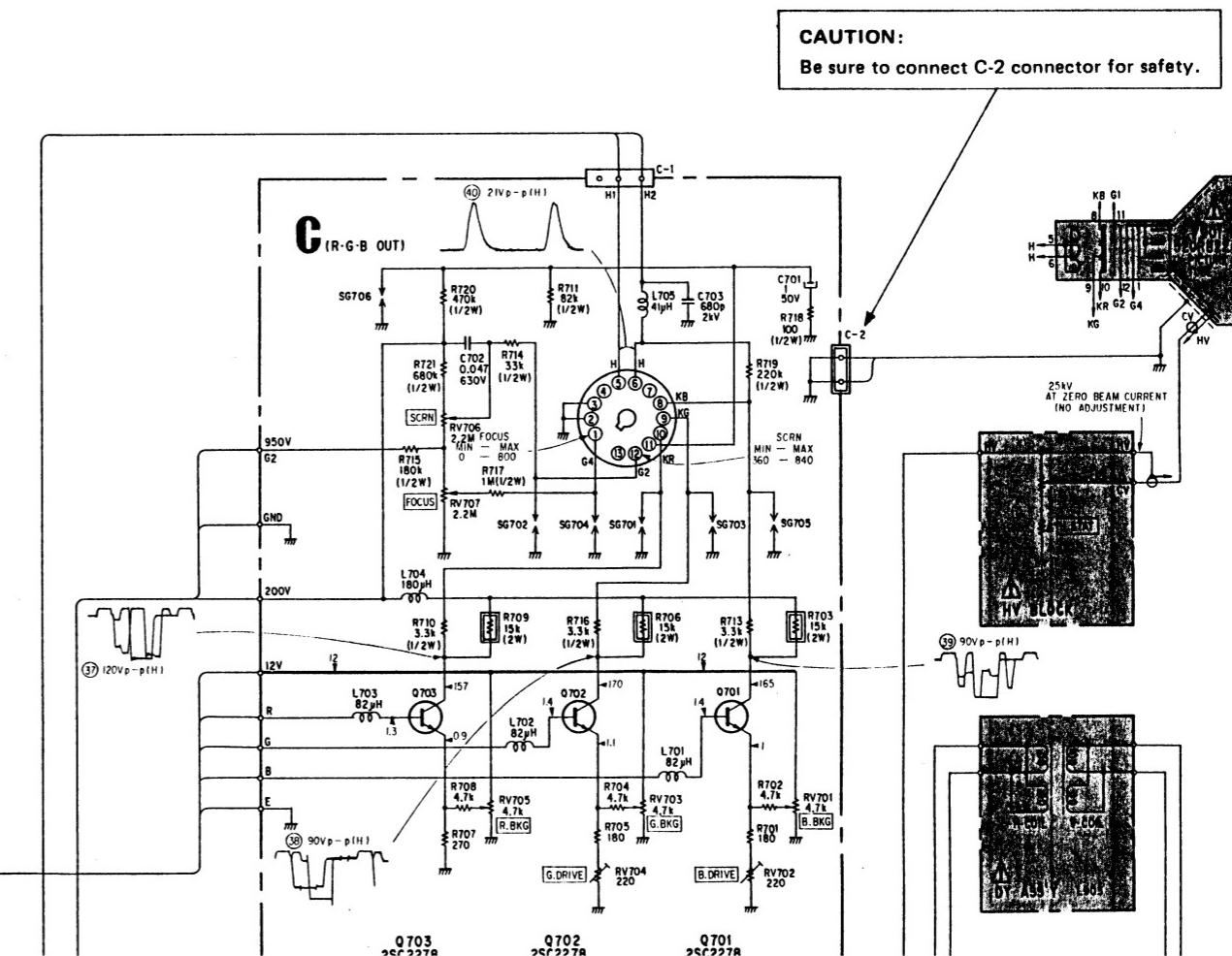
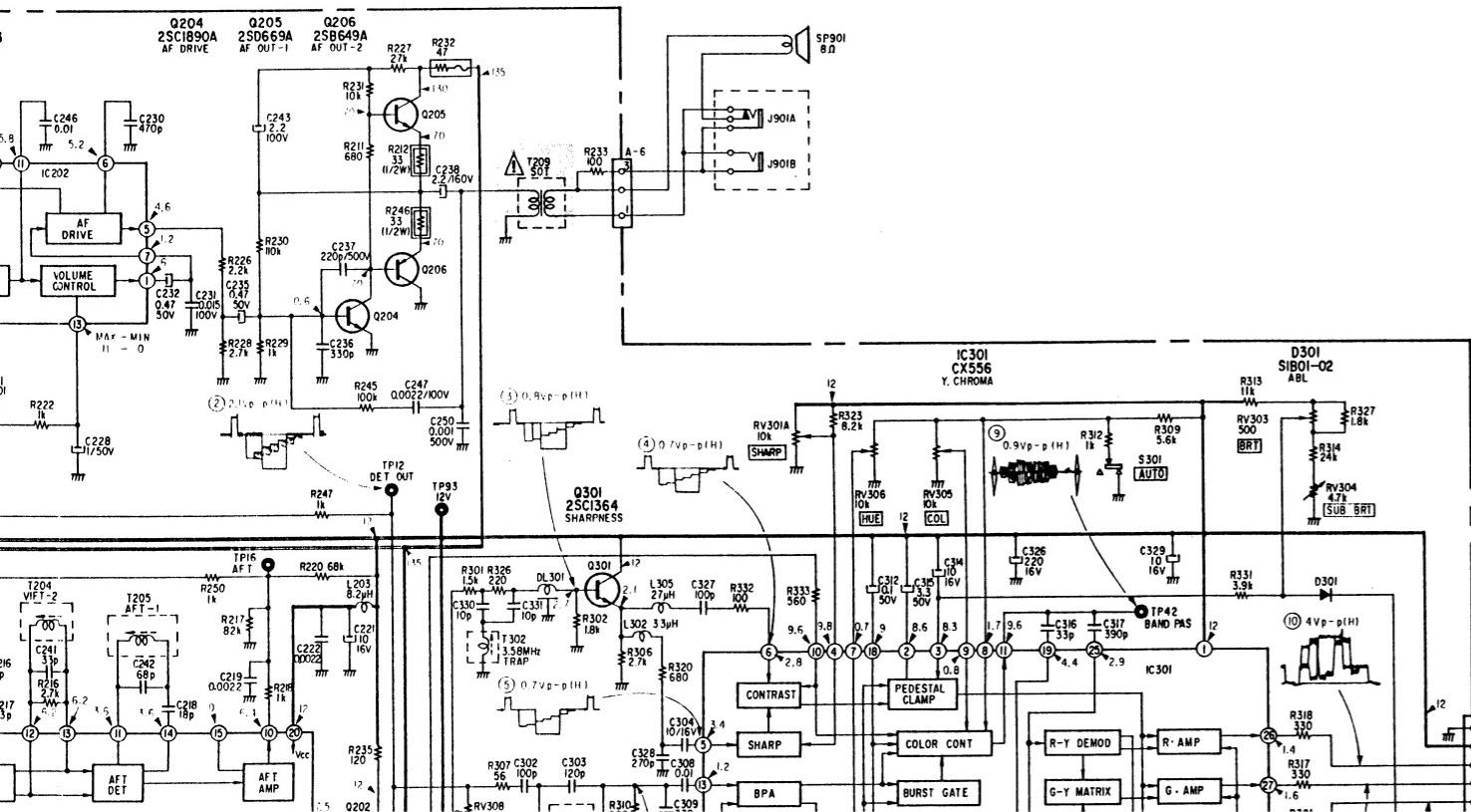
**CAUTION:**  
This set is equipped with a polarized AC power cord plug (one blade of the plug is wider than the other), be sure to use it having the specified part number and connect it as shown in this diagram.

**CAUTION:**  
When taking a broken fuse (F6  
C605 to avoid shock hazard.



MC-Service

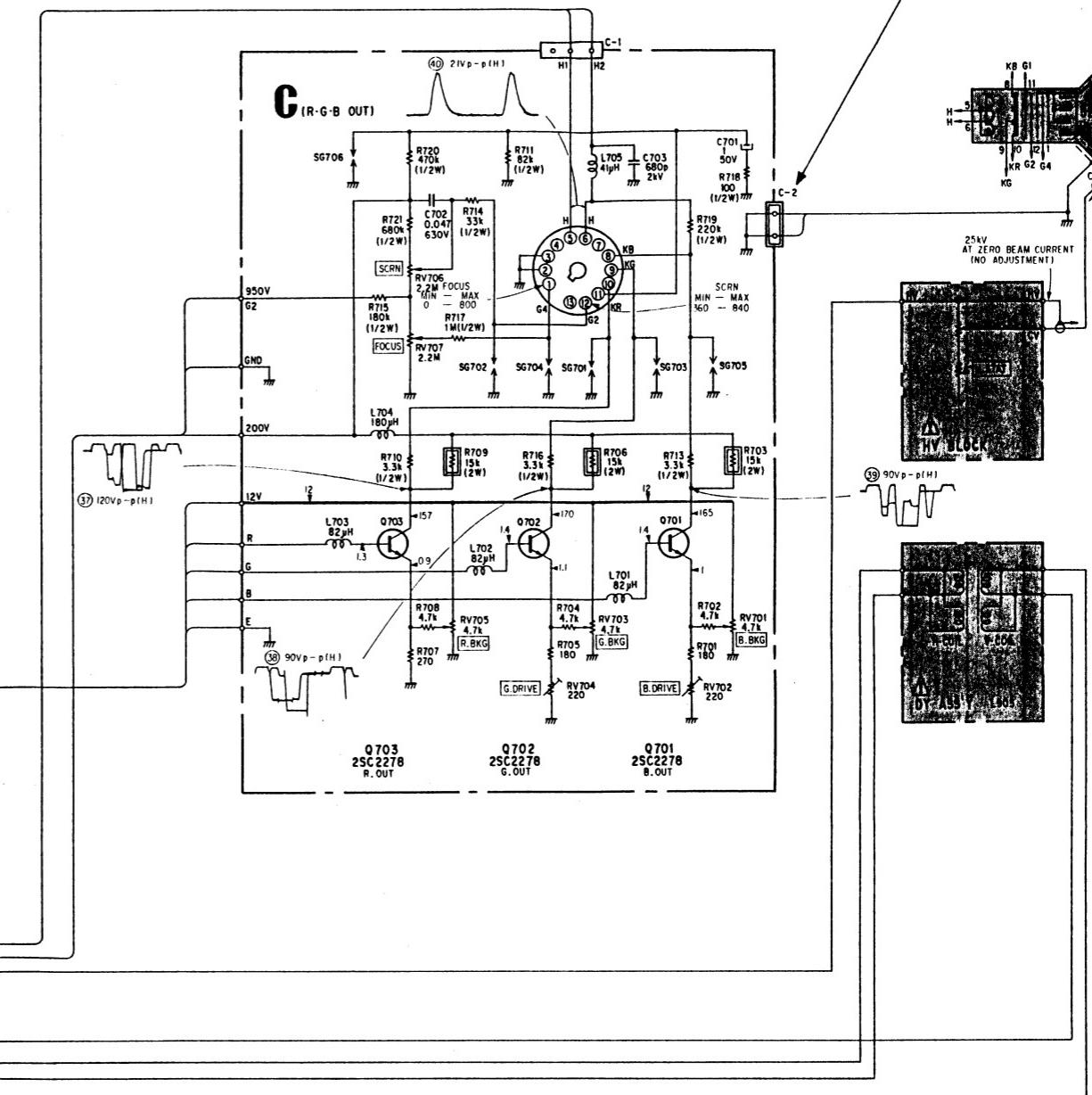
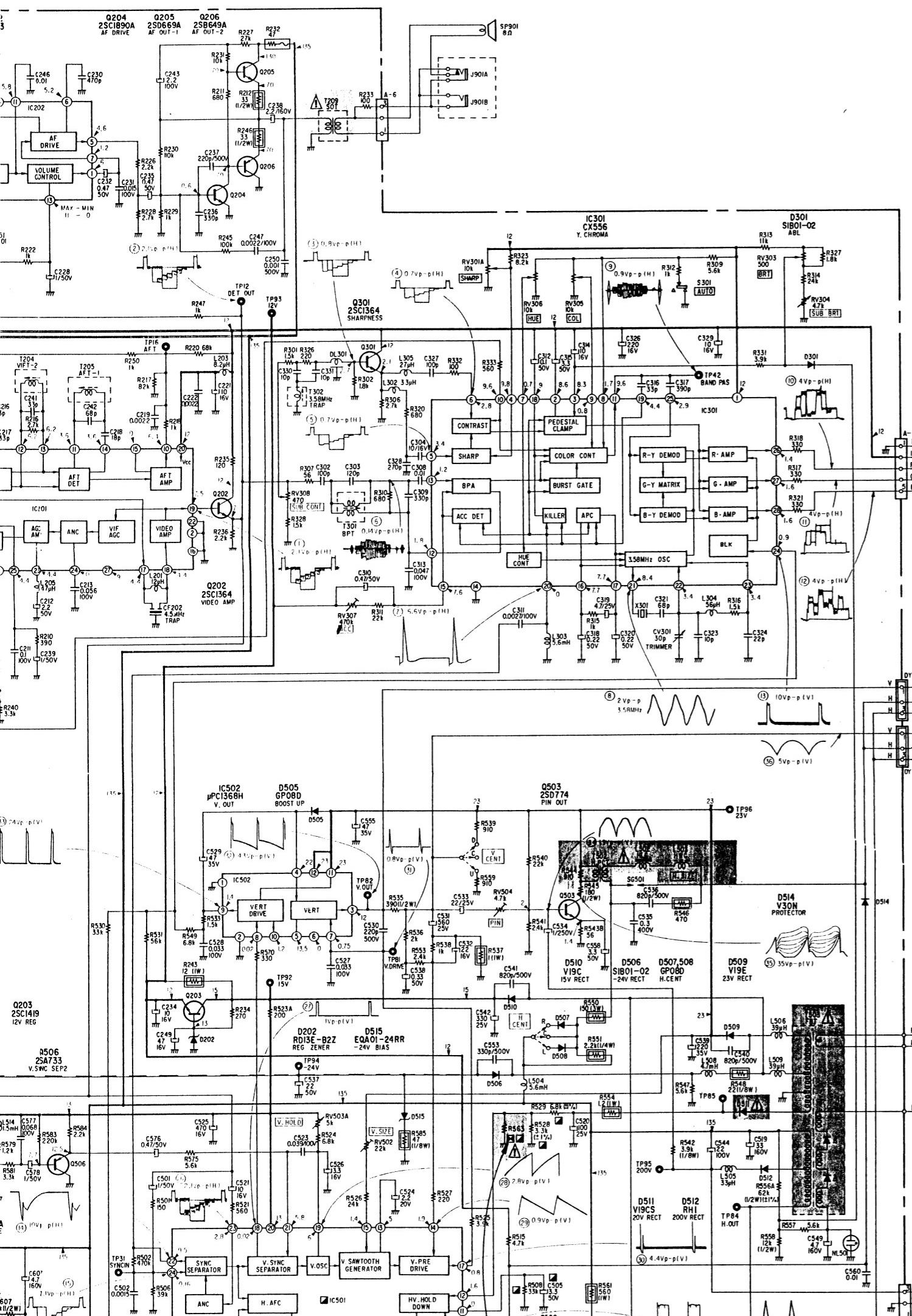
I J K L M N O P



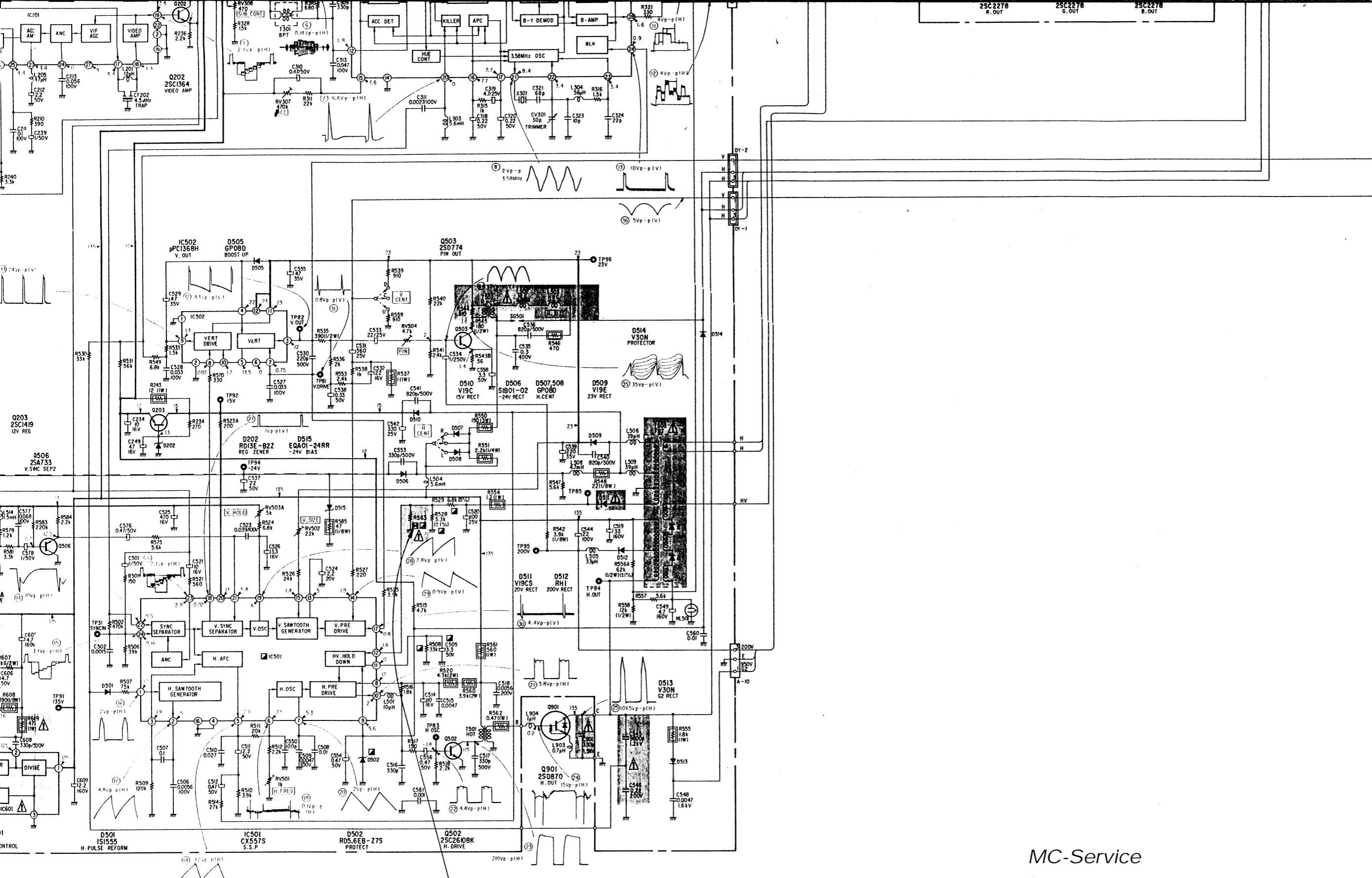
1

2

3



MC-Service



MC-Service

■: See pages 16, 17.

g a broken fuse (F602) off, discharge across  
id shock hazard.

A B C D E F G H

**MOUNTING DIAGRAM**

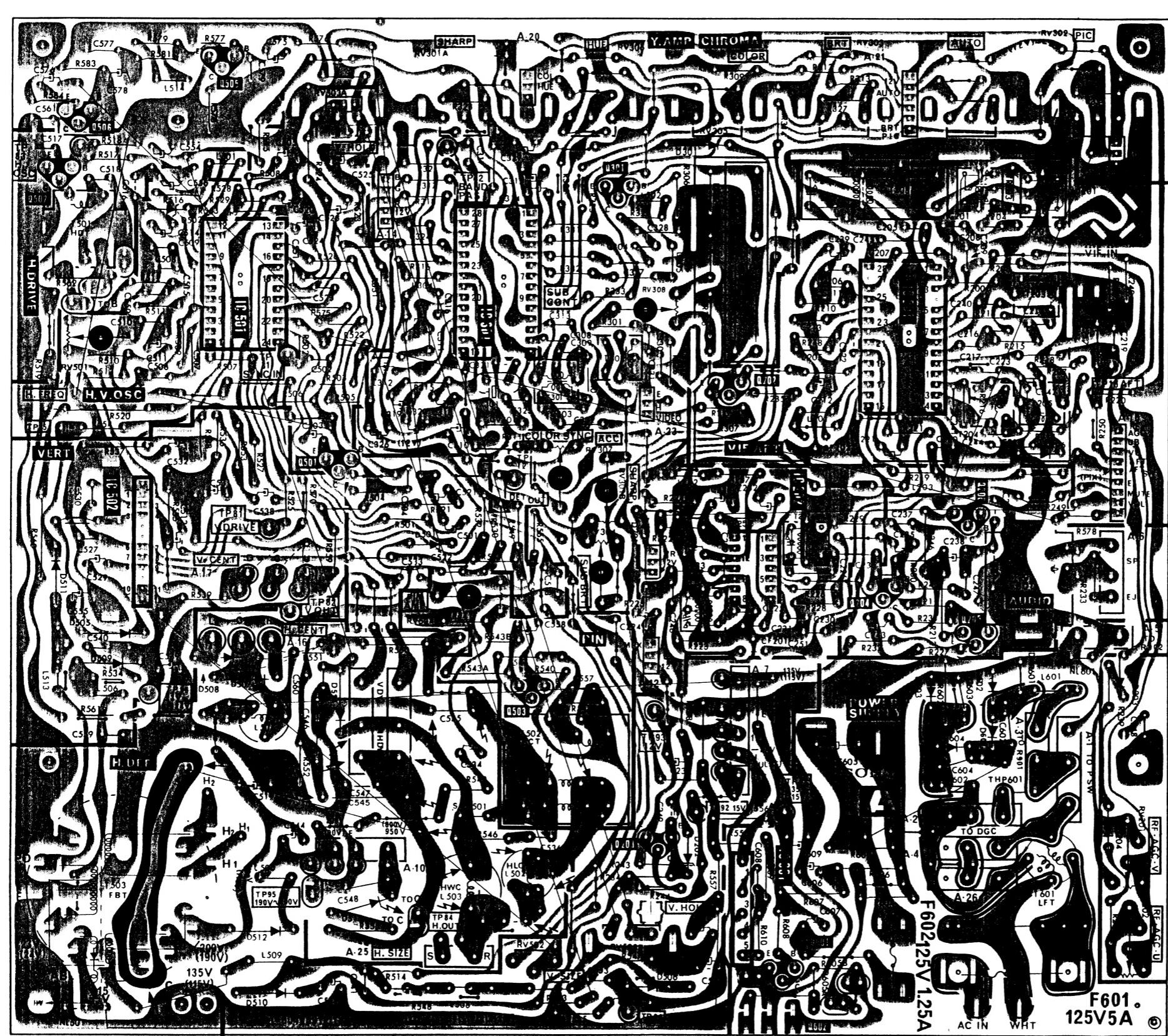
**A**

VIF, SIF, AF OUT  
CHROMA, Y. AMP  
H DEF, V DEF  
POWER SUPPLY

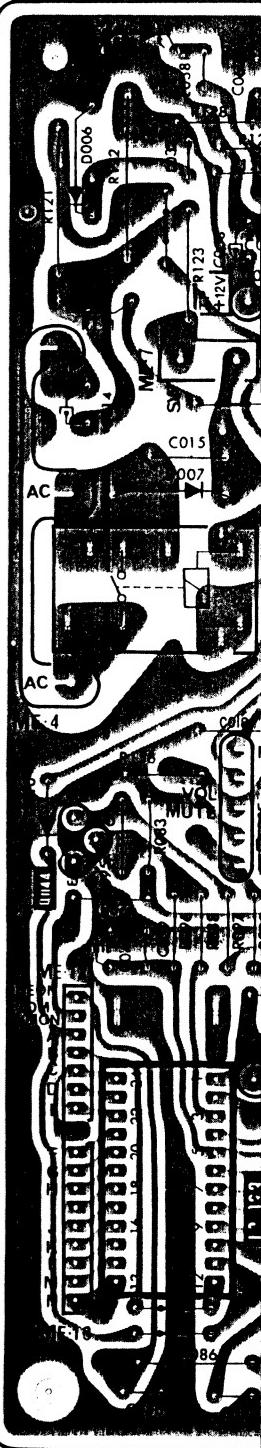
**ME**

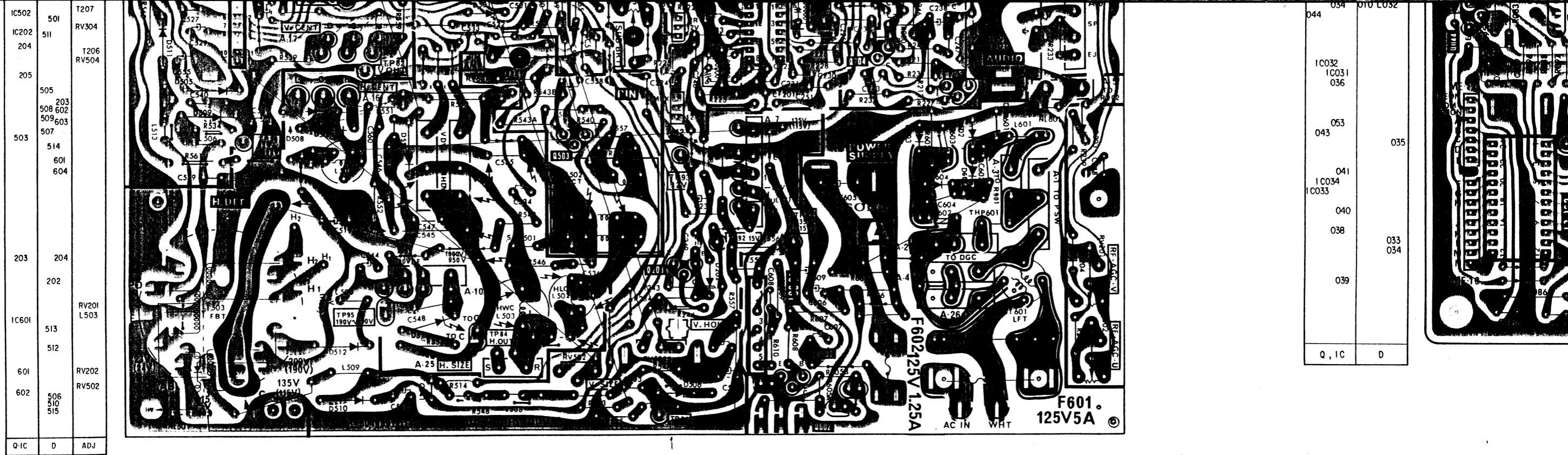
REMOTE CONTROL  
TUNING CONTROL  
MEMORY, NEON DRIVE  
BAND SWITCH

Q-IC	D	ADJ
505		
506	301	
502	301	502
IC301 IC501		RV308
IC201		RV501
202		
	CV301	
	RV307	
206		
IC502	501	T207
IC202	511	RV304
204		T206 RV504
205		
505	203	
508	602	
509	603	
507		
514		
601		
604		
203	204	
202		
IC601		RV201 L503
513		
512		
601		RV202
602	506 515	RV502
Q-IC	D	ADJ



Q, IC	D
005	012
002	009
052 001	006
004	003
1C001	011
005	013
050 006	030
051	014 006
047	048
008	032
054	035
045	039
033	031 010 L032
044	038
1C032	036
1C031	036
053	043
043	035
041	040
1C034	038
1C033	038
039	034
Q, IC	D





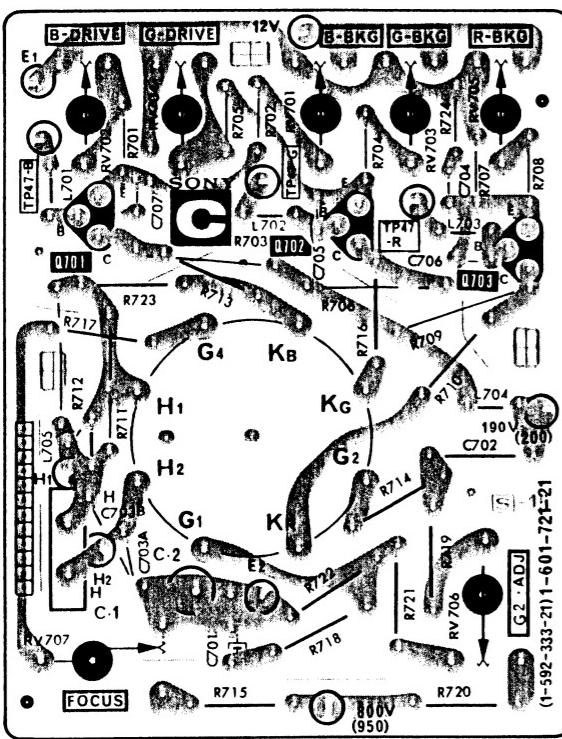
**C** [R.G.B OUT]

[R·G·B OUT]

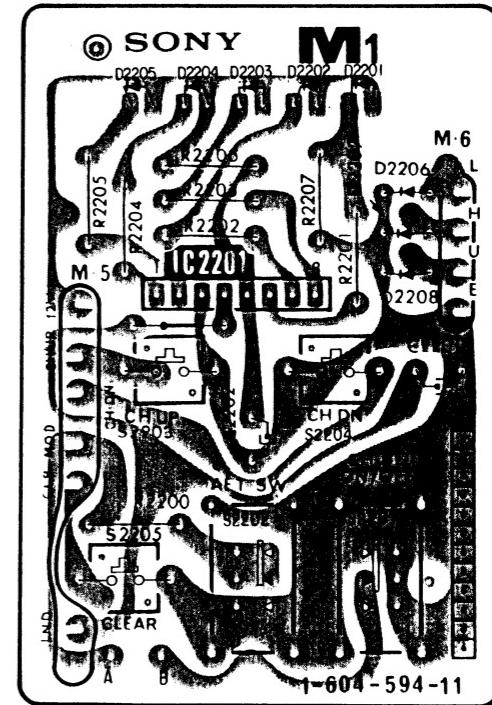
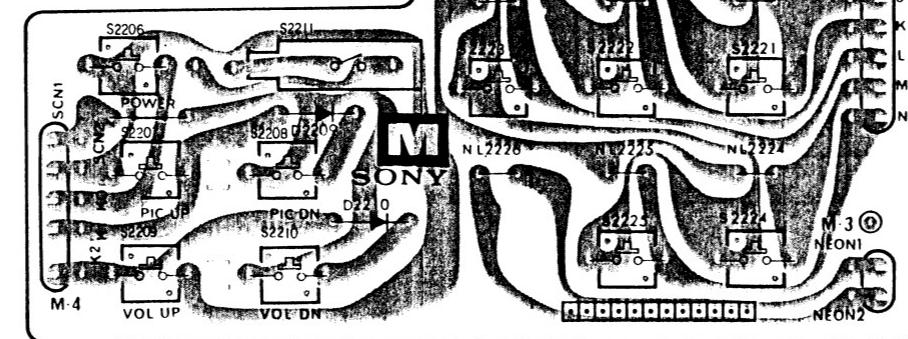
**M** CHANNEL SELECT  
CUSTOMER CONTROL

**M1** [CHANNEL SET]

**S** [TUNER  
ACTIVE FILTER]



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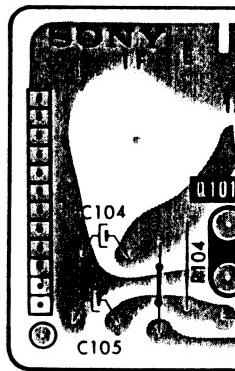
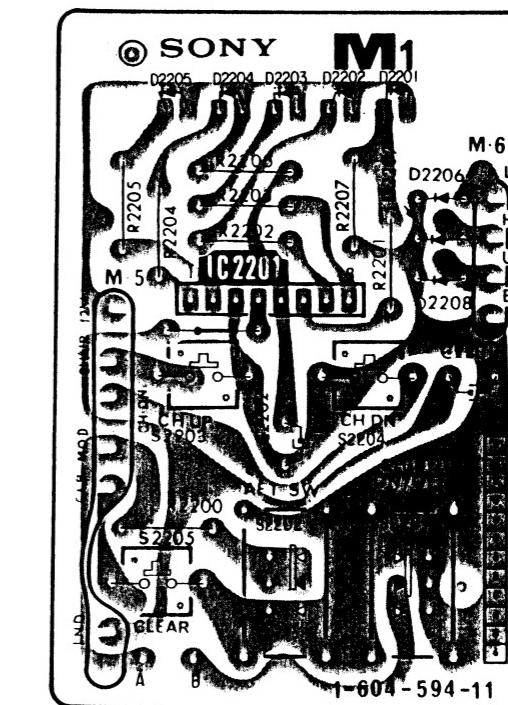
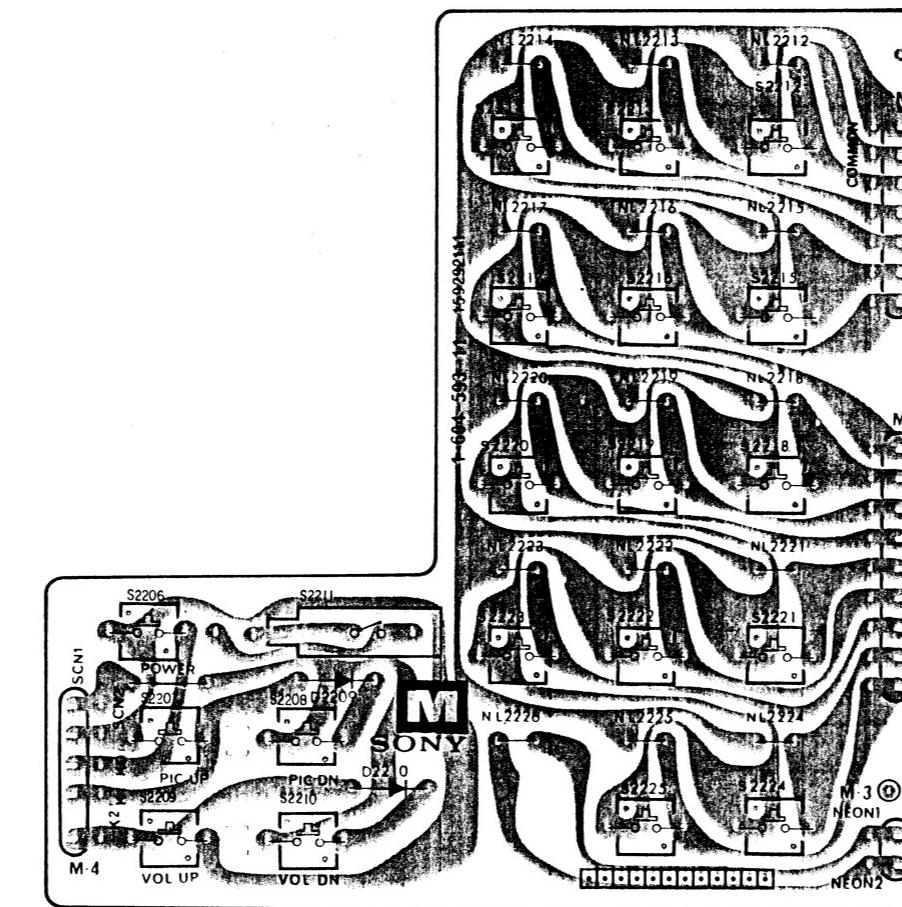
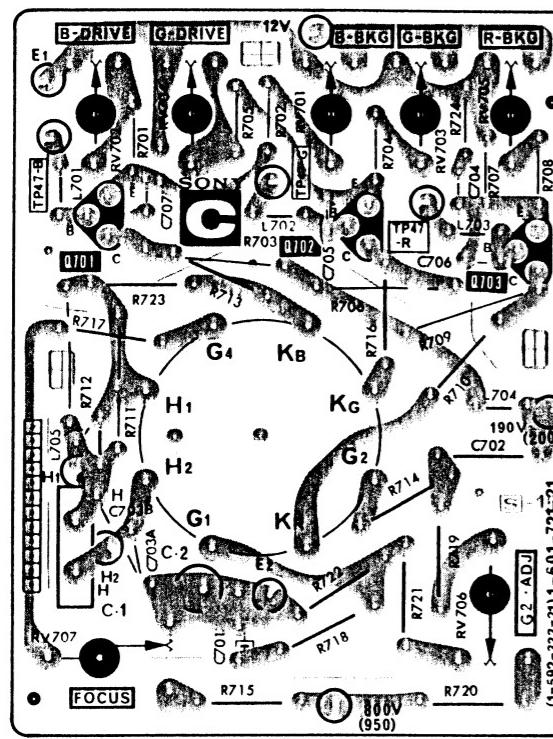
6

**C** [R·G·B OUT]

**M** CHANNEL SELECT  
CUSTOMER CONTROL

**M1** [CHANNEL SET]

**S** [TUNER  
ACTIVE FILTER]



H

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1

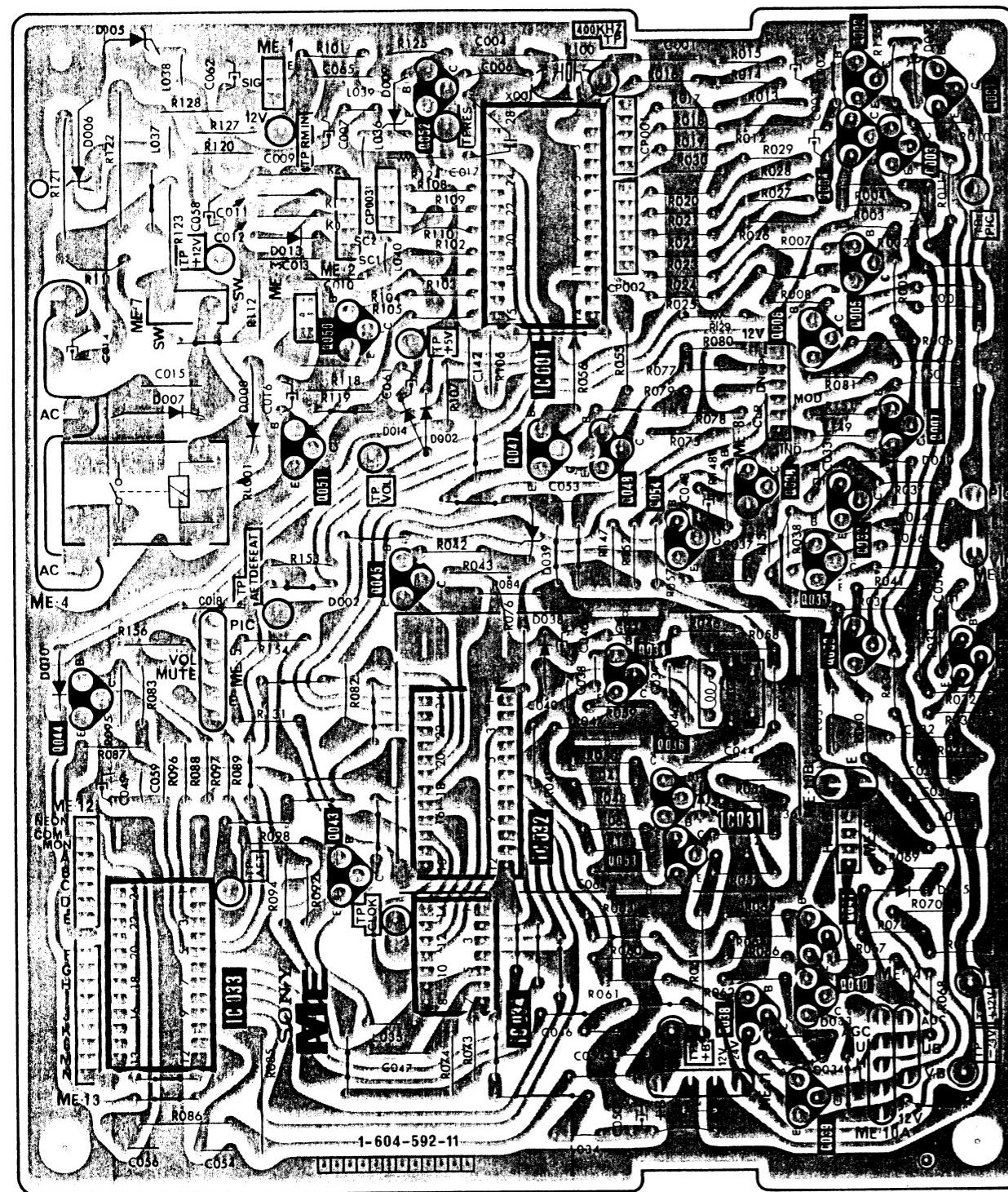
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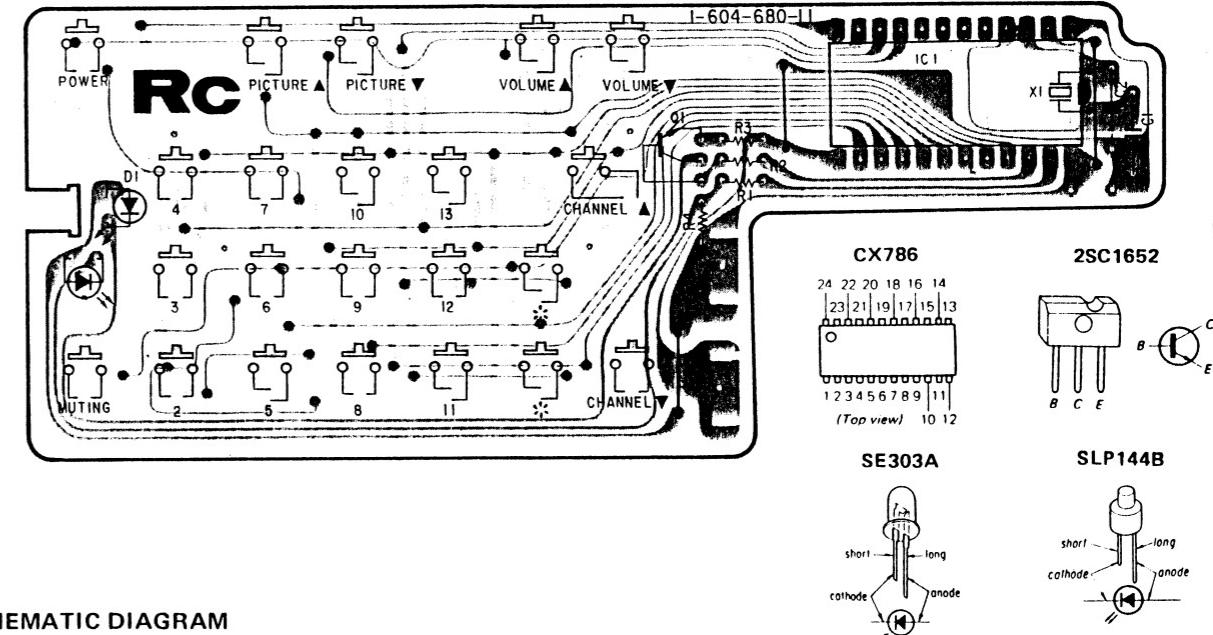
ONTROL  
NTROL  
NEON DRIVE  
CH



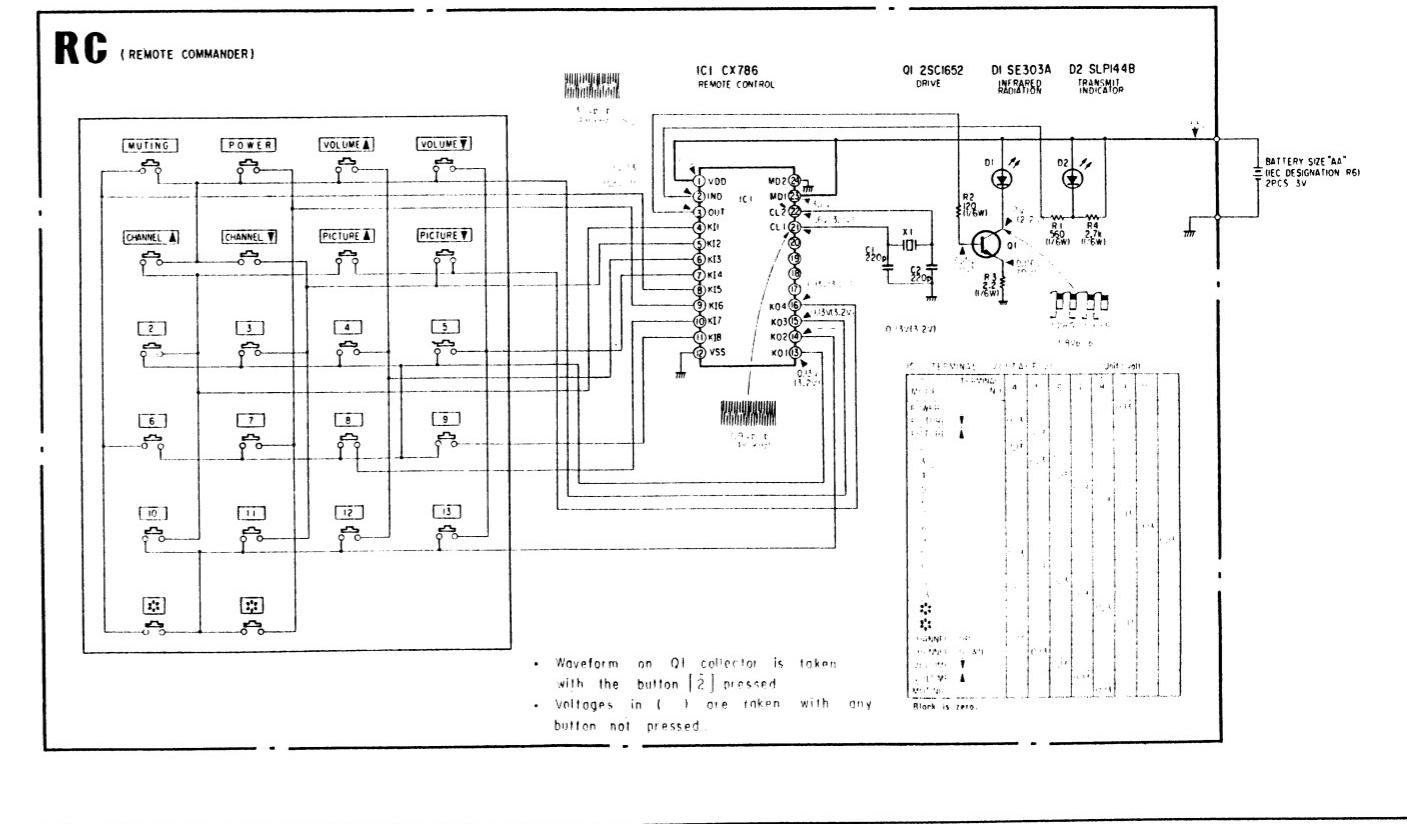
REMOTE COMMANDER RM-703

## MOUNTING DIAGRAM

*– Conductor Side*



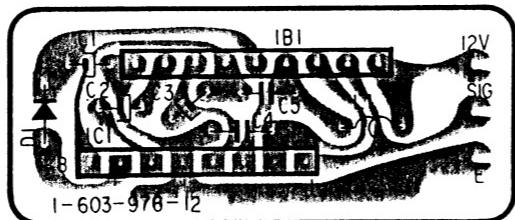
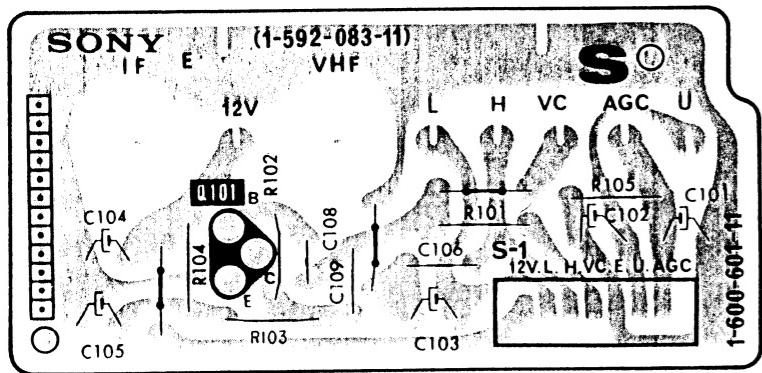
SCHEMATIC DIAGRAM



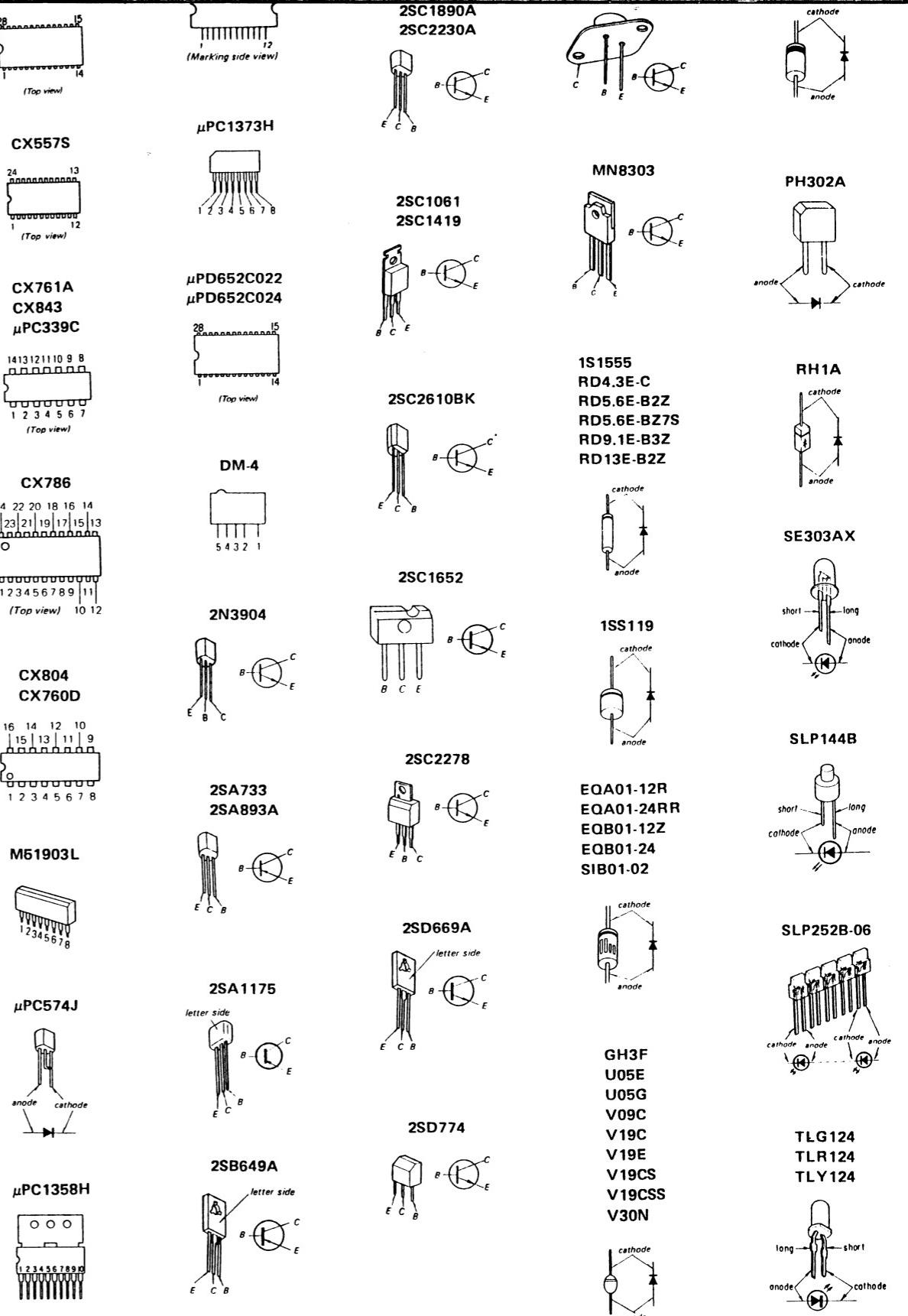


**S** [TUNER  
ACTIVE FILTER]

**N** [DETECTOR]  
[INF AMP]



MC-Service



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and Consumer Video Group  
© 1981

9-962-711-71

**SONY**  
**TRINITRON®**  
**COLOR TV**

**KV-1746R/RM-703**

## *US Model*

*Chassis No. : SCC-341A-A*

## **SCHEMATIC DIAGRAM**

**WARNING!!**

## **SAFETY-RELATED COMPONENT WARNING !!**

COMPONENTS IDENTIFIED BY SHADING AND MARK  
▲ ON THE SCHEMATIC DIAGRAMS, EXPLODED  
VIEWS AND IN THE PARTS LIST ARE CRITICAL TO  
SAFE OPERATION. REPLACE THESE COMPONENTS  
WITH SONY PARTS WHOSE PART NUMBERS APPEAR  
AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS  
PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS  
THAT ARE CRITICAL TO SAFE OPERATION ARE  
IDENTIFIED IN THIS MANUAL. FOLLOW THESE PRO-  
CEDURES WHENEVER CRITICAL COMPONENTS ARE  
REPLACED OR IMPROPER OPERATION IS SUSPECTED.

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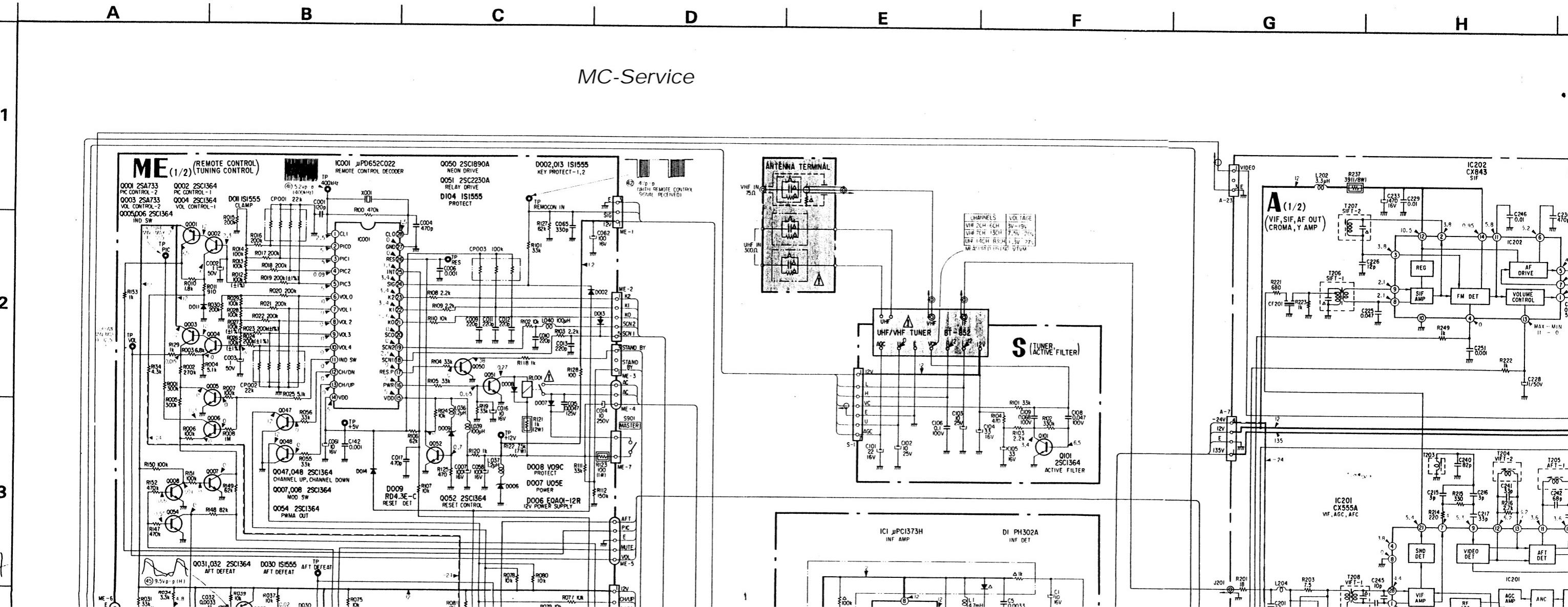
- Note:** The components identified by shading and mark  
⚠ are critical for safety. Replace only with  
part number specified.

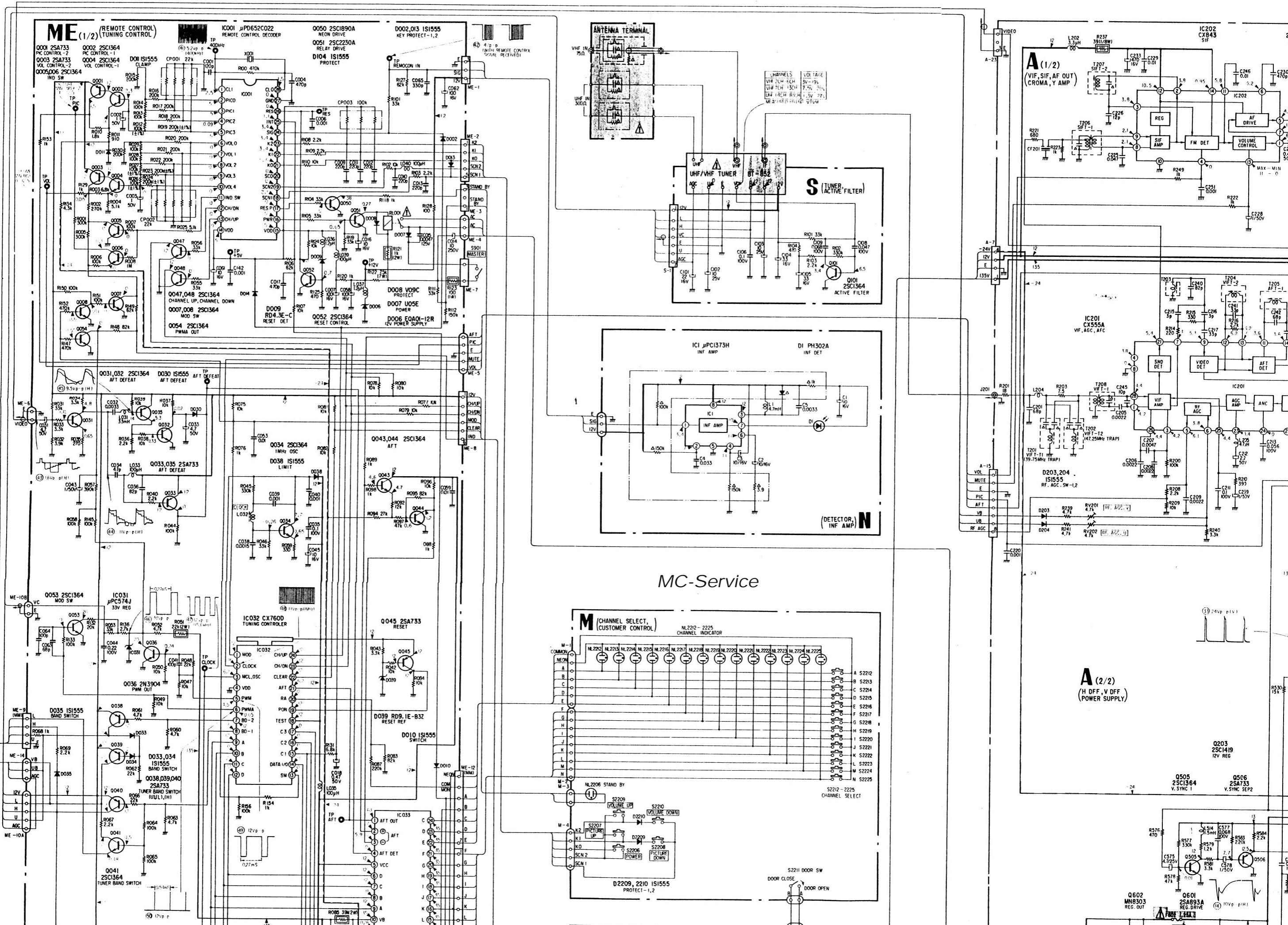
- All mounting diagrams are viewed from conductor side.
  - All capacitors are in  $\mu\text{F}$  unless otherwise noted. 50WV or less are not indicated except for electrolytics. pF :  $\mu\text{F}$
  - All resistors are in ohms,  $\frac{1}{4}\text{W}$  unless otherwise noted.  
 $k\Omega$  :  $1000\Omega$ ,  $M\Omega$  :  $1000k\Omega$
  -  : nonflammable resistor.
  -  : internal component.
  -  : panel designation.
  - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
  - The components identified by  in this manual have been carefully factory selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
  - When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by  and repeat the adjustment until the specified value is achieved. (Refer to R563 adjustment on page 16).

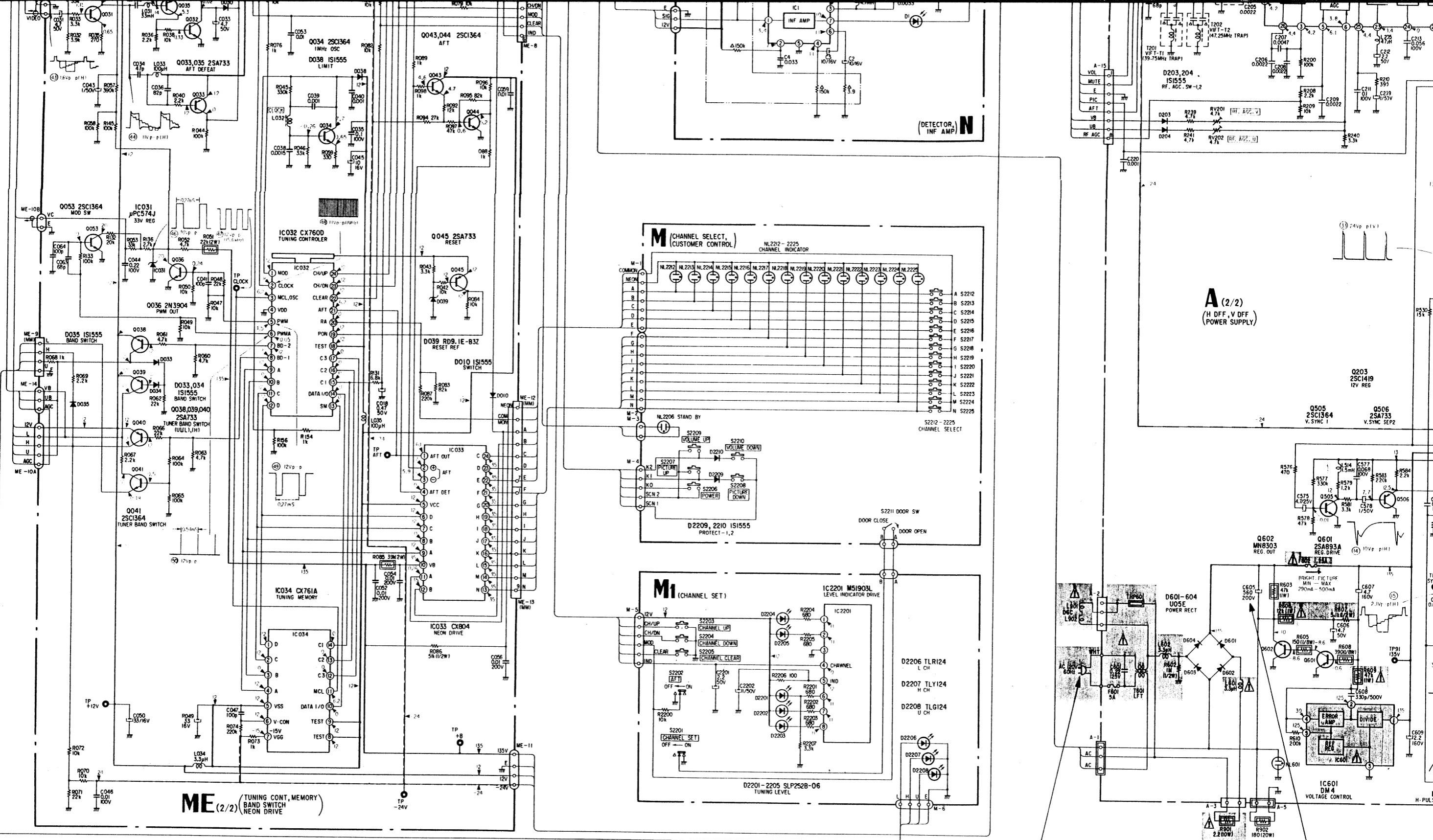
When replacing the part in below table, be sure to perform the related adjustment.

KV-1746R	
Part replaced ( <input checked="" type="checkbox"/> )	Adjustment ( <input checked="" type="checkbox"/> )
C505, C520, C554, D502, IC501, R508, R515, R528, R529, R554, R563	R563 adjustment

- All voltages are in V.
  - Voltages are dc with respect to ground unless otherwise noted.
  - Readings are taken with a 20,000-ohm-per-volt VOM.
  - [ ] : adjustment for repair.
  - Readings are taken with a color-bar signal input.
  - Voltage variations may be noted due to normal production tolerances.
  - Voltages on ME and S board are taken with set selected to CH-A (VHF HIGH) position.
  - — : B+ bus.
  - - - - : B- bus.





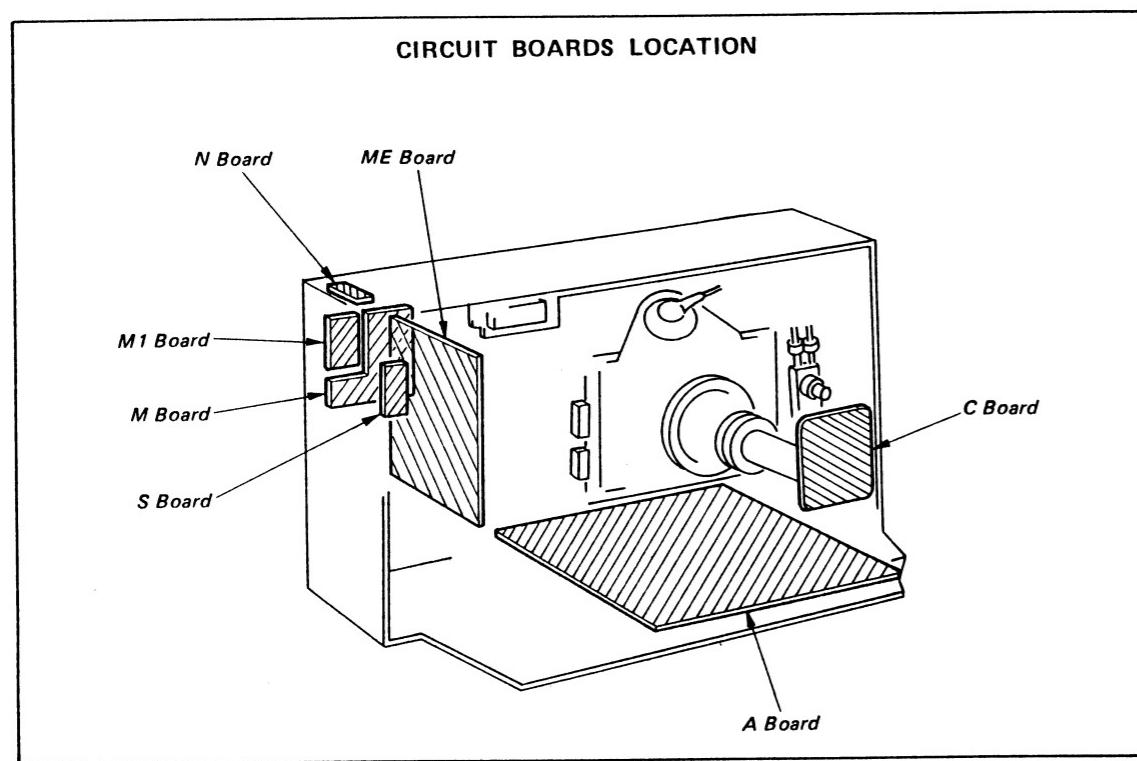


MC-Service

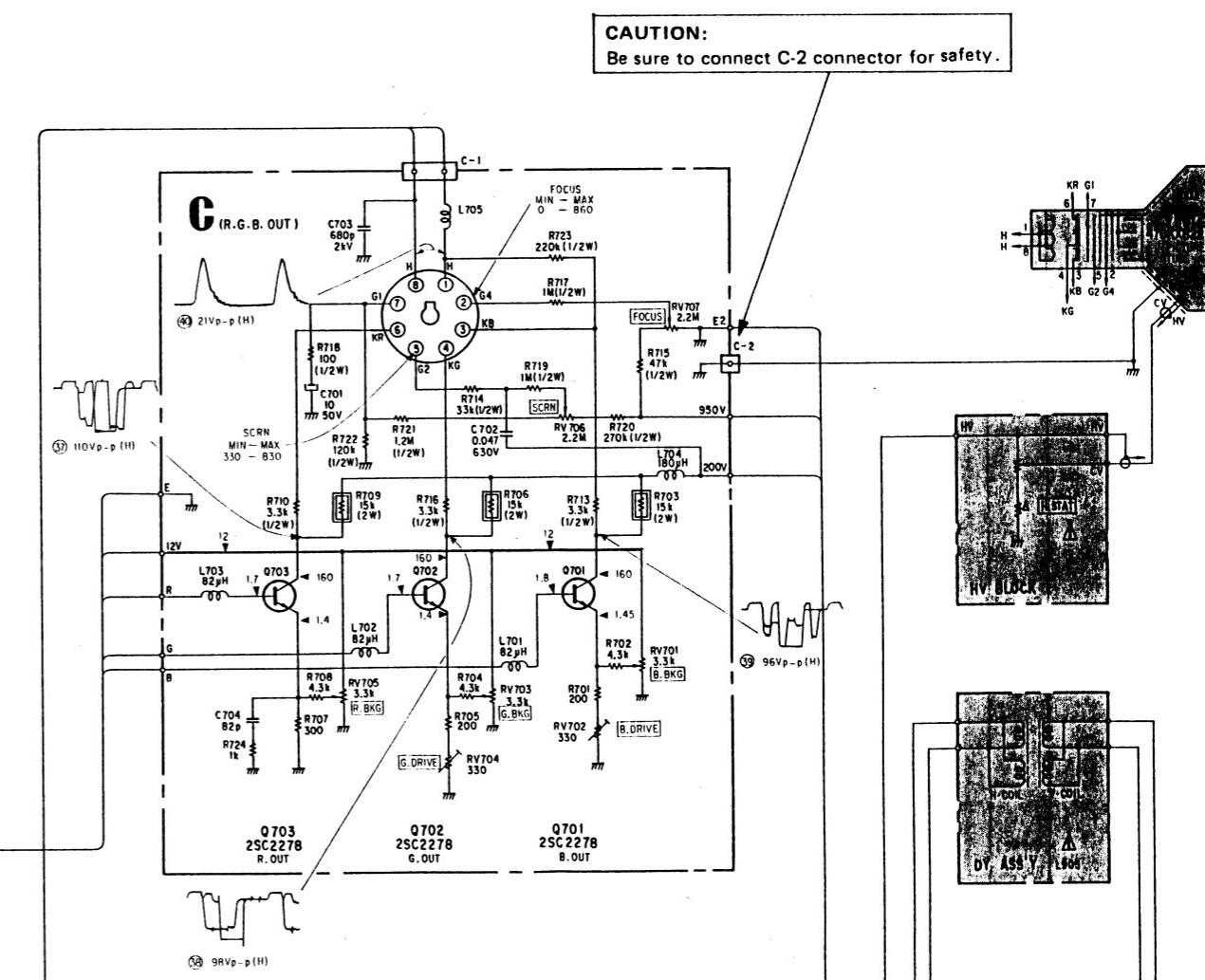
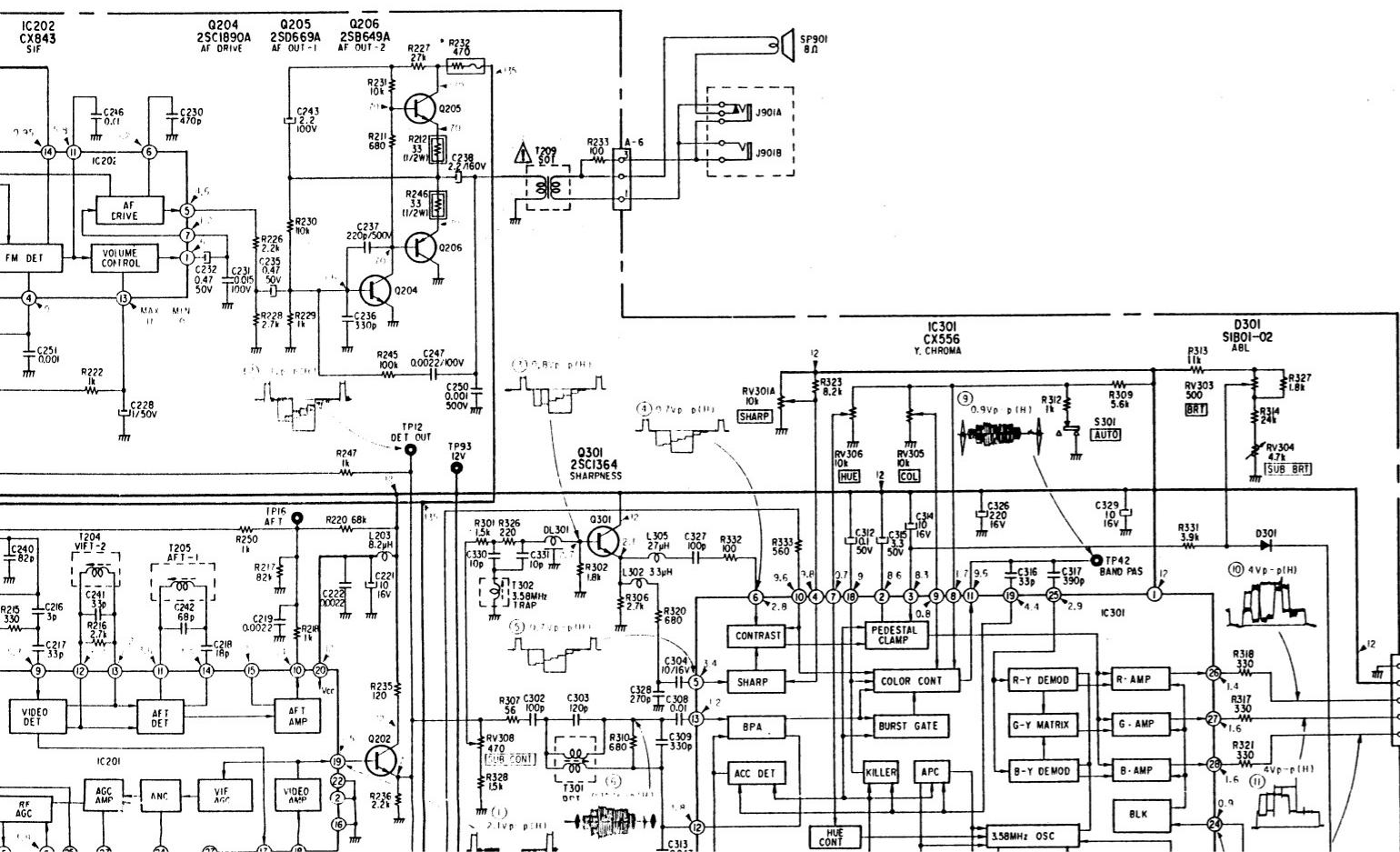
**CAUTION:**

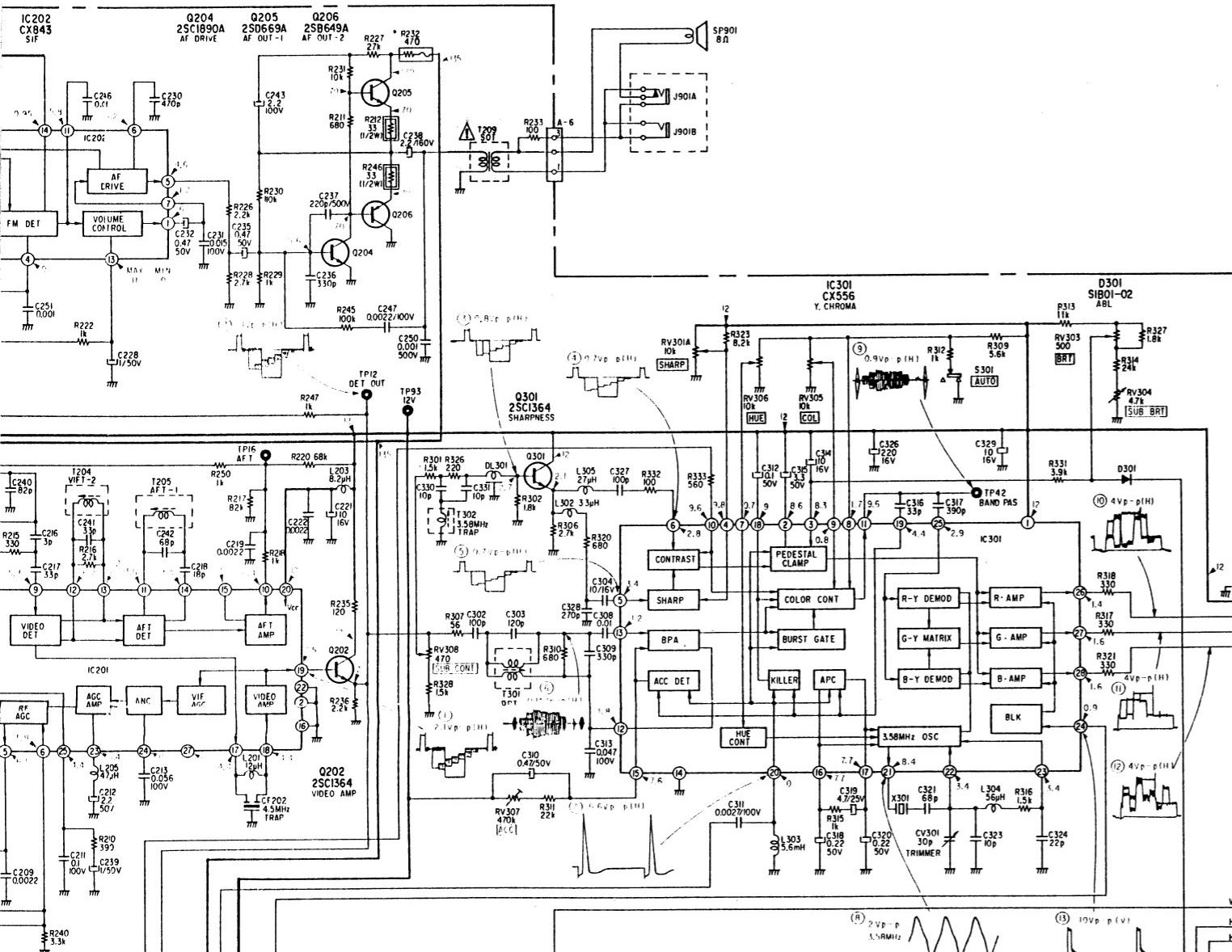
This set is equipped with a polarized AC power cord plug (one blade of the plug is wider than the other), be sure to use it having the specified part number and connect it as shown in this diagram.

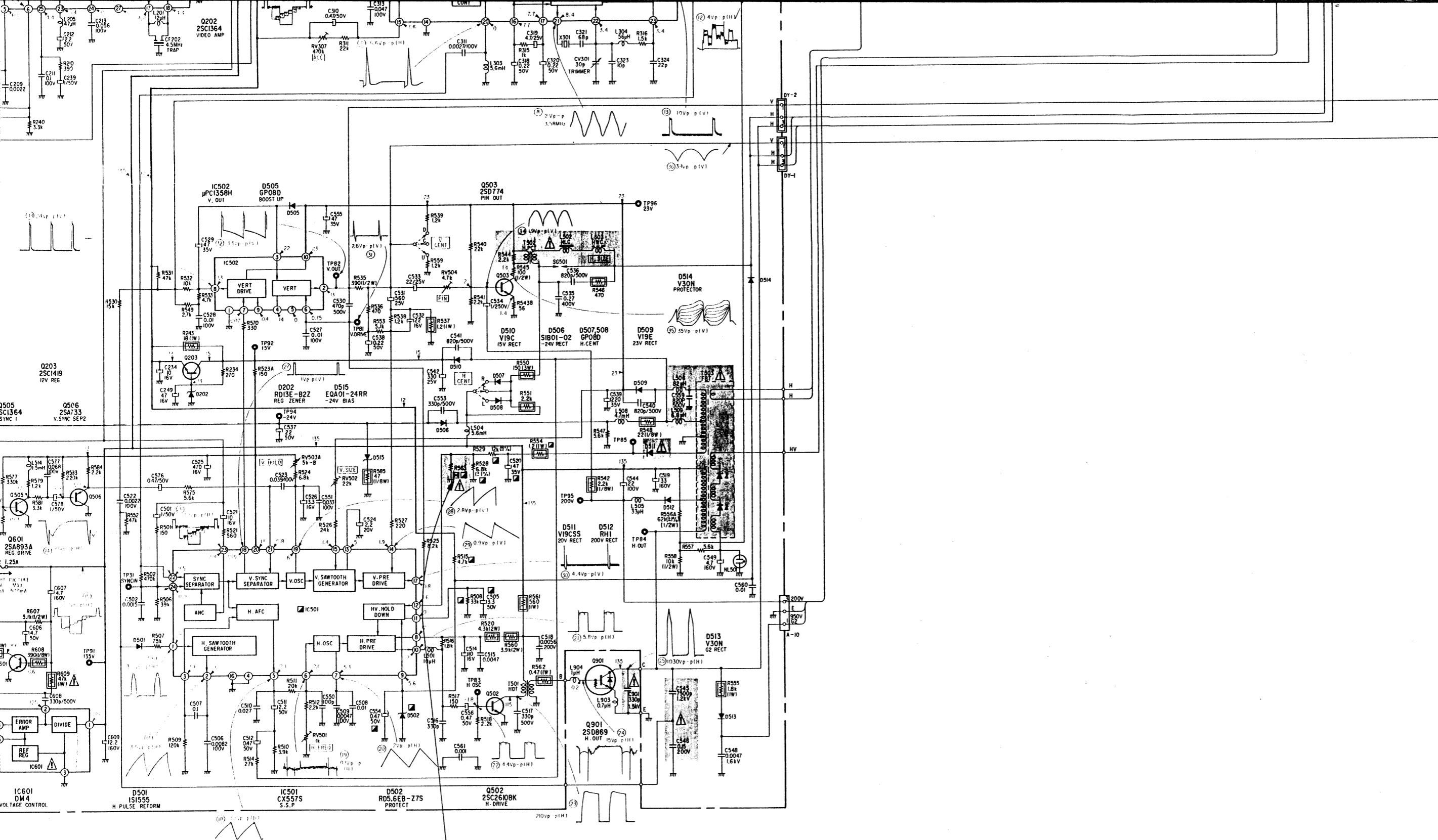
**CAUTION:**  
When taking a broken fuse (F602 C605 to avoid shock hazard.



J            K            L            M            N







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N:  
aking a broken fuse (F602) off, discharge across  
void shock hazard.

■ : See page 16, 17.

# **SONY TRINITRON® COLOR TV**

## **KV-1204/1215 *US Model***

*Chassis No.*  
SCC-110B-A (KV-1204)  
SCC-110A-A (KV-1215)

## **SCHEMATIC DIAGRAM**

**WARNING!!**  
**TO ELIMINATE SHOCK HAZARD AND PROTECT EQUIPMENT WHEN SERVICING THE SET WITH THE COVERS REMOVED, MAKE SURE THAT THE SET IS PLUGGED INTO A SUITABLY-RATED ISOLATION TRANSFORMER.**

#### **SAFETY-RELATED COMPONENT WARNING!!**

COMPONENTS IDENTIFIED BY SHADING ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

**Note:** The components identified by shading are critical for safety. Replace only with part number specified.

**Note:**

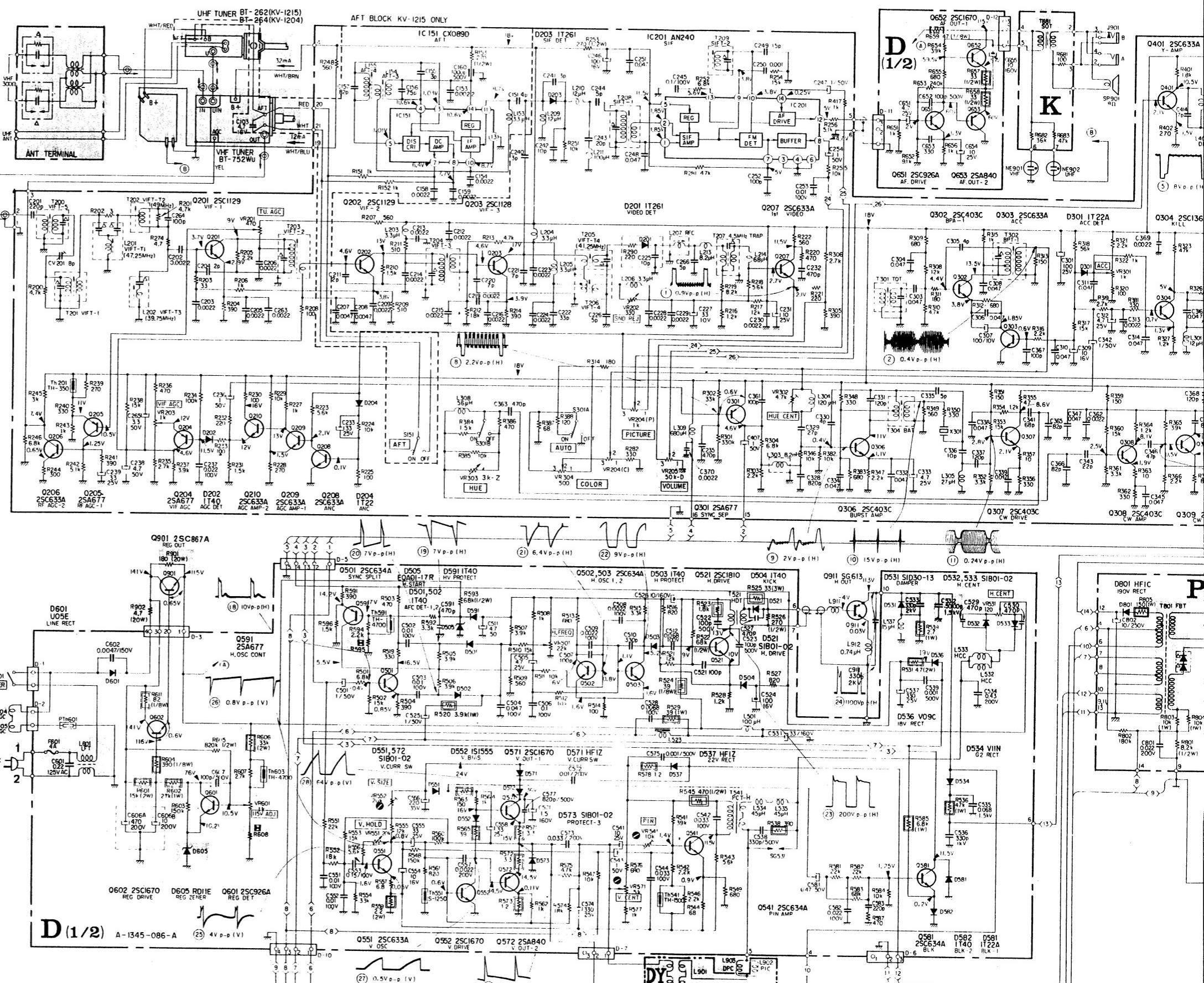
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $p=\mu\mu\text{F}$ .
  - All resistors are in ohms, 1/4W unless otherwise noted.  
 $k=1000$   $M=100k$
  - $\times$  indicates values to be selected.
  - indicates factory selected values.
  - $\triangle$  indicates internal components.
  - Voltages are DC with respect to ground unless otherwise noted. Readings are with a color-bar signal applied.  
 Voltage variations may be noted due to normal production tolerances.
  -  indicates a nonflammable resistor.
  - Adjustable without removing cabinet

## **MOUNTING DIAGRAM**

**Note:** All mounting diagrams are viewed from conductor side.

- indicates parts or wire connection point on the conductor side.
  - indicates parts or wire connection point through the component side.
  - indicates parts on the conductor side.

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**CX089D**  
**(KV-1215 only)**

AN1340

38A67

22/2/13

D3C

B3A

B4A

2SC1128

SG613



Note: The components identified by shading are critical for safety. Replace only with part number specified.

Note:

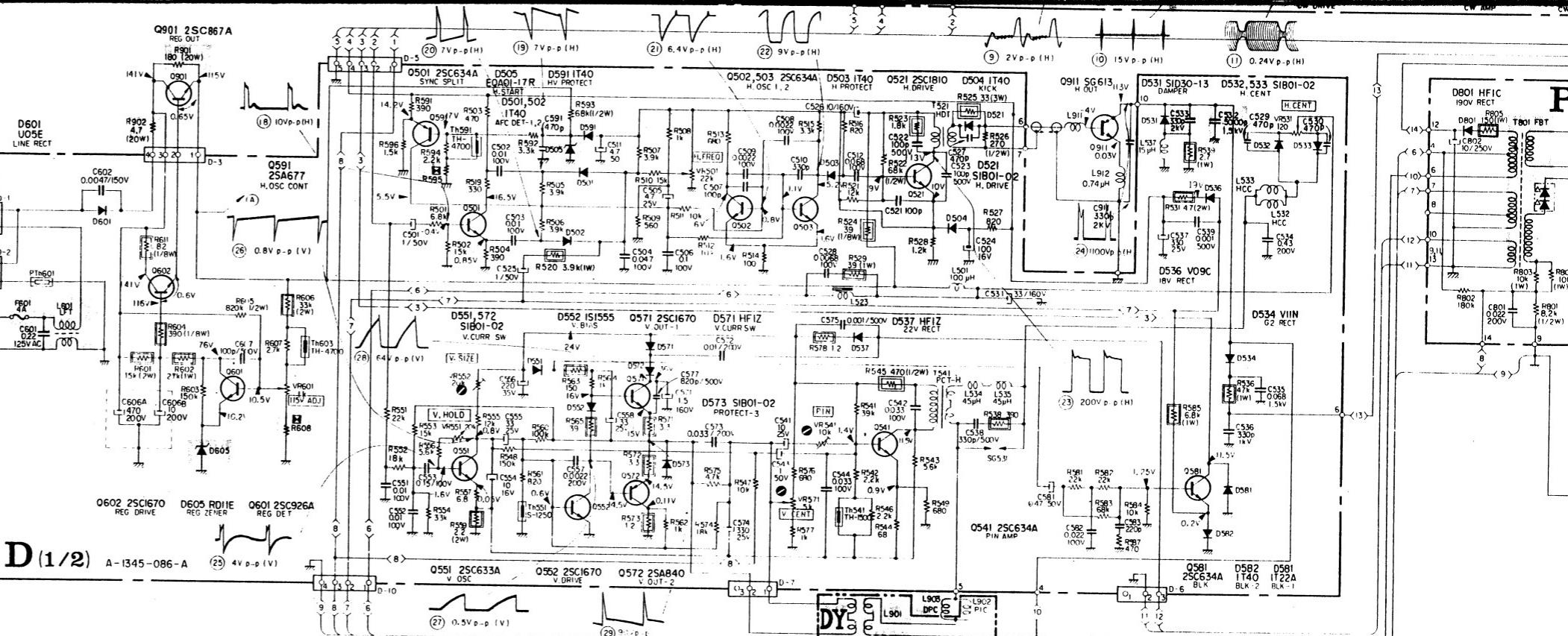
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{p}=\mu\mu\text{F}$ .
- All resistors are in ohms, 1/4W unless otherwise noted.
- $k=1000$  M=1000k
- $\times$  indicates values to be selected.
- $\blacksquare$  indicates factory selected values.
- $\triangle$  indicates internal components.
- Voltages are DC with respect to ground unless otherwise noted. Readings are with a color-bar signal applied. Voltage variations may be noted due to normal production tolerances.
- $\blacksquare$  indicates a nonflammable resistor.
- Adjustable without removing cabinet.

## MOUNTING DIAGRAM

Note: All mounting diagrams are viewed from conductor side.

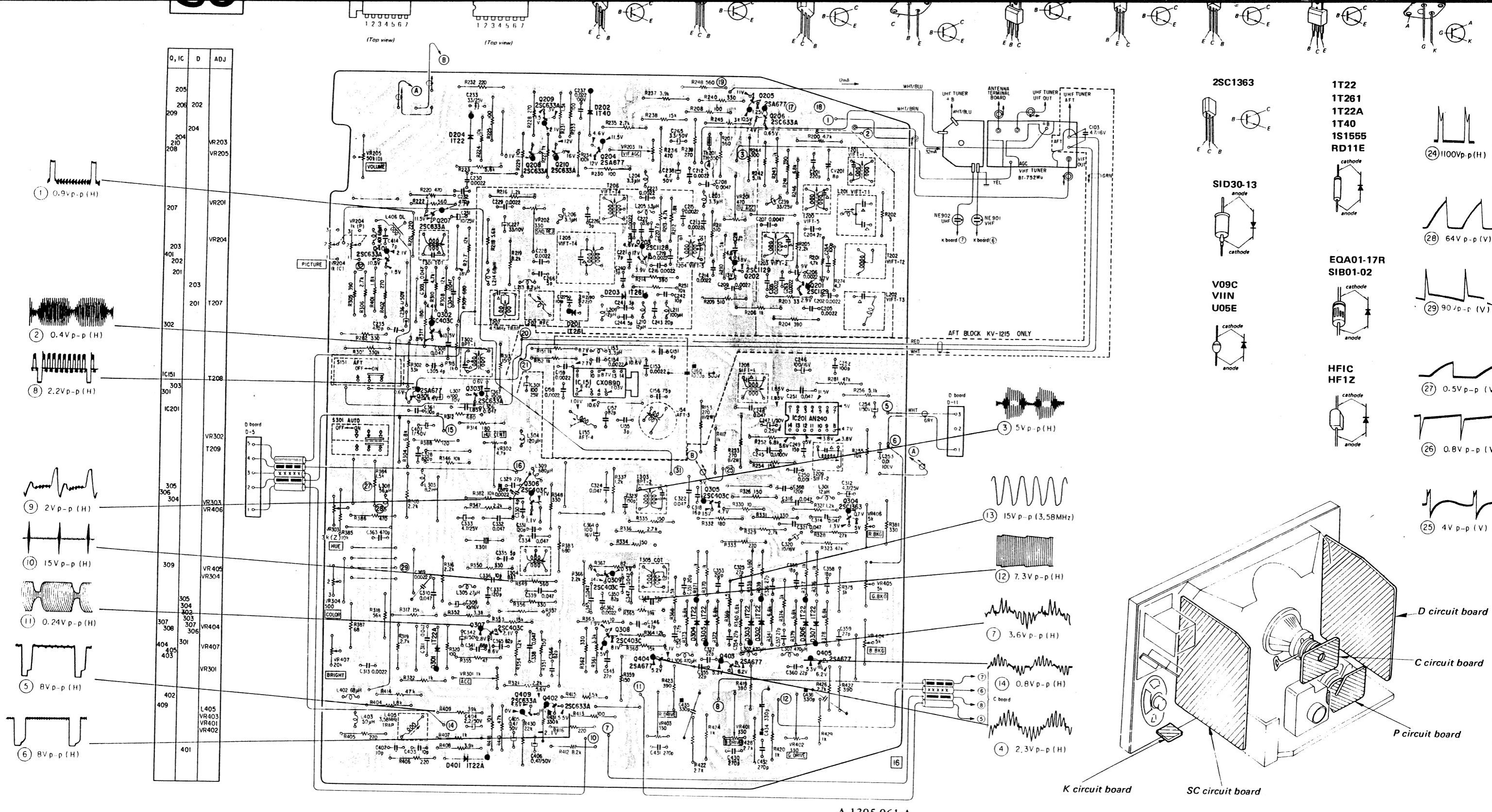
- indicates parts or wire connection point on the conductor side.
- indicates parts or wire connection point through the component side.
- indicates parts on the conductor side.

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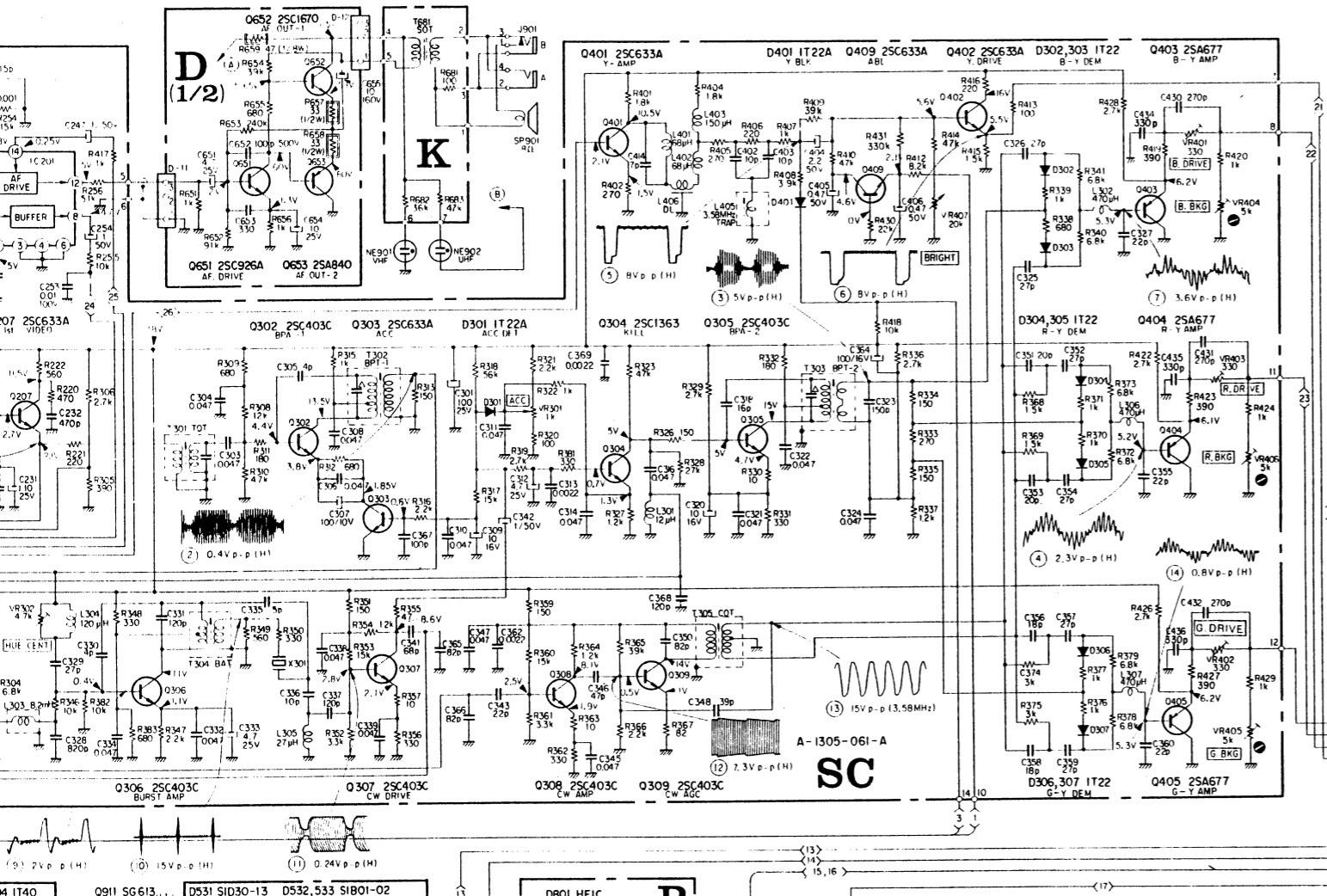


D (1/2) A-1345-086-A

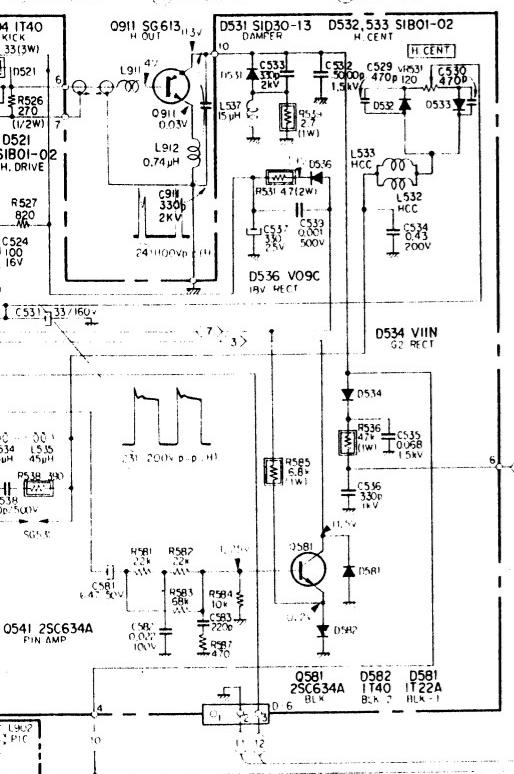
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1101 2SA



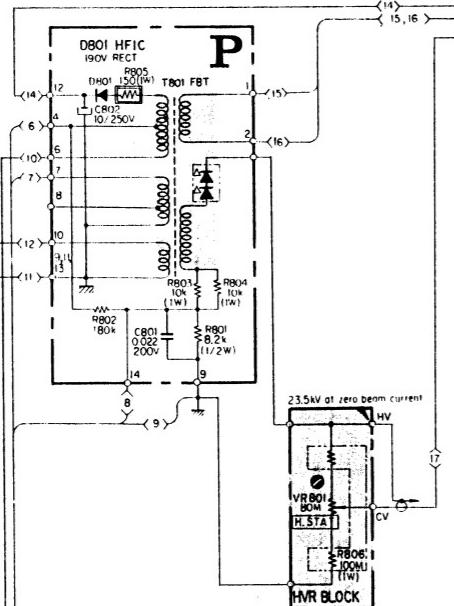
MC-Service



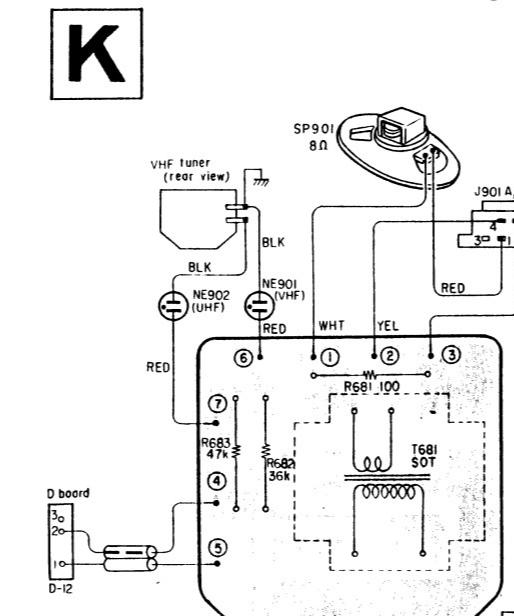
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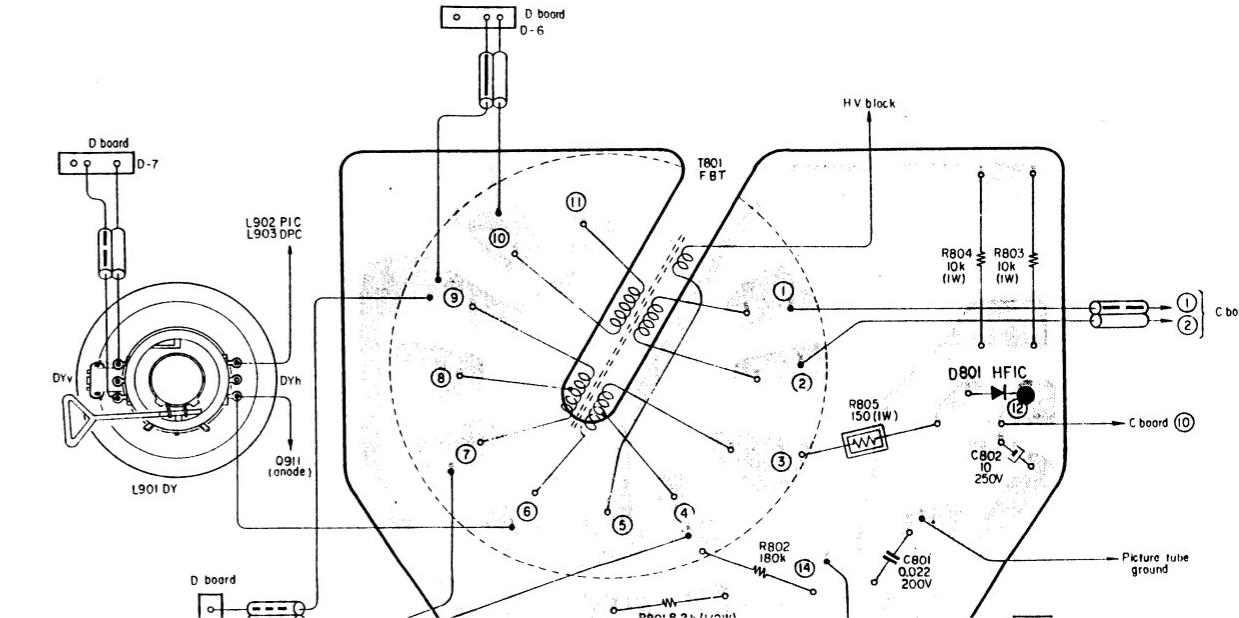
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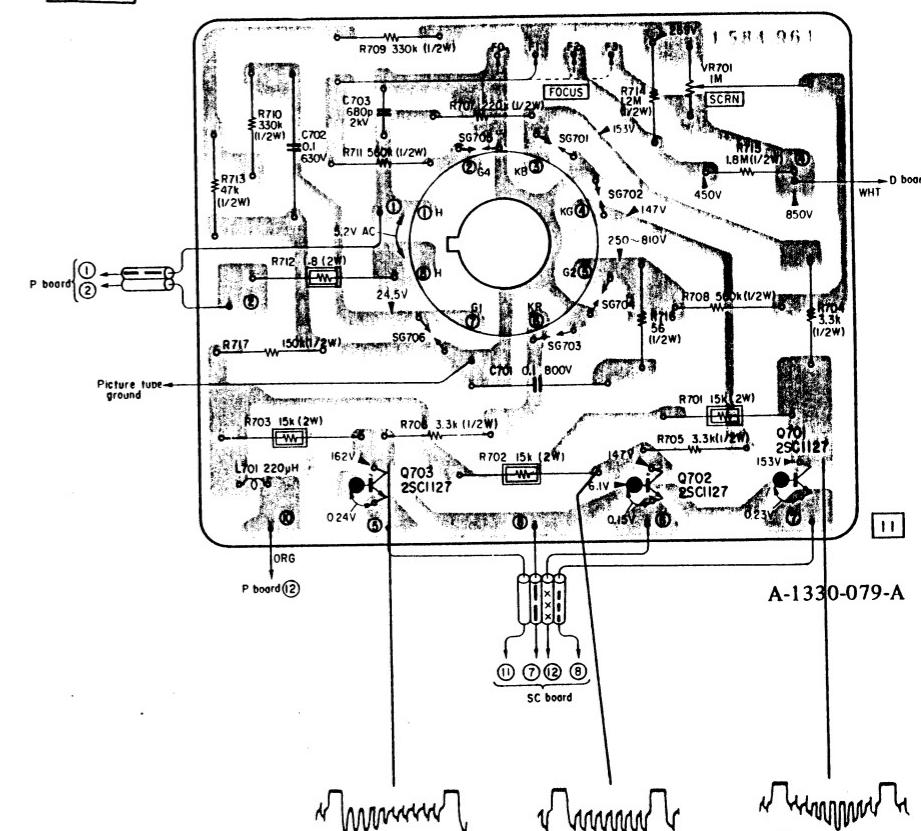
MC-Service



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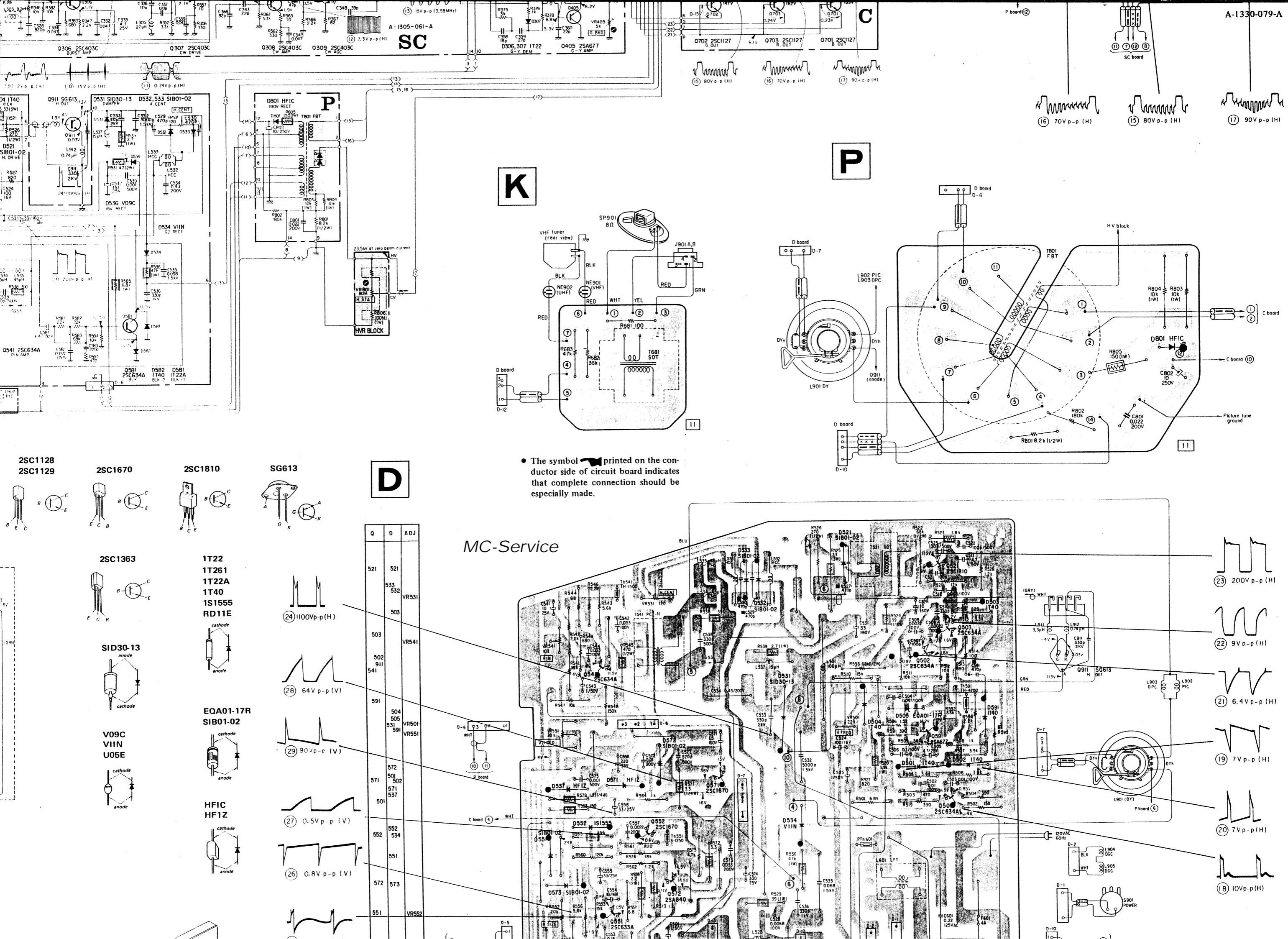


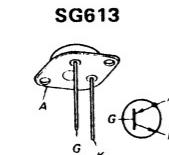
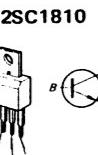
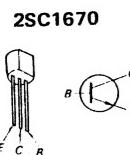
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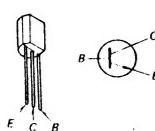
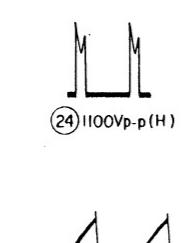
**CAUTION**

- Do not rub printed ink on the paper excessively.
- Do not touch the paper to heated resistors, soldering iron, solder, etc.

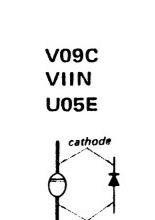
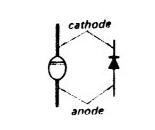
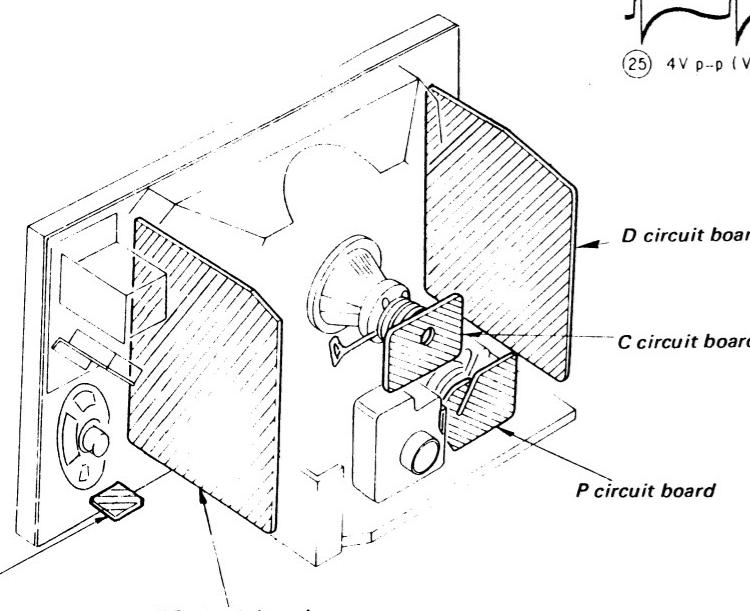
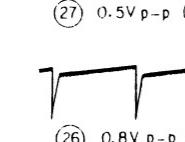


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2SC1129

2SC1363

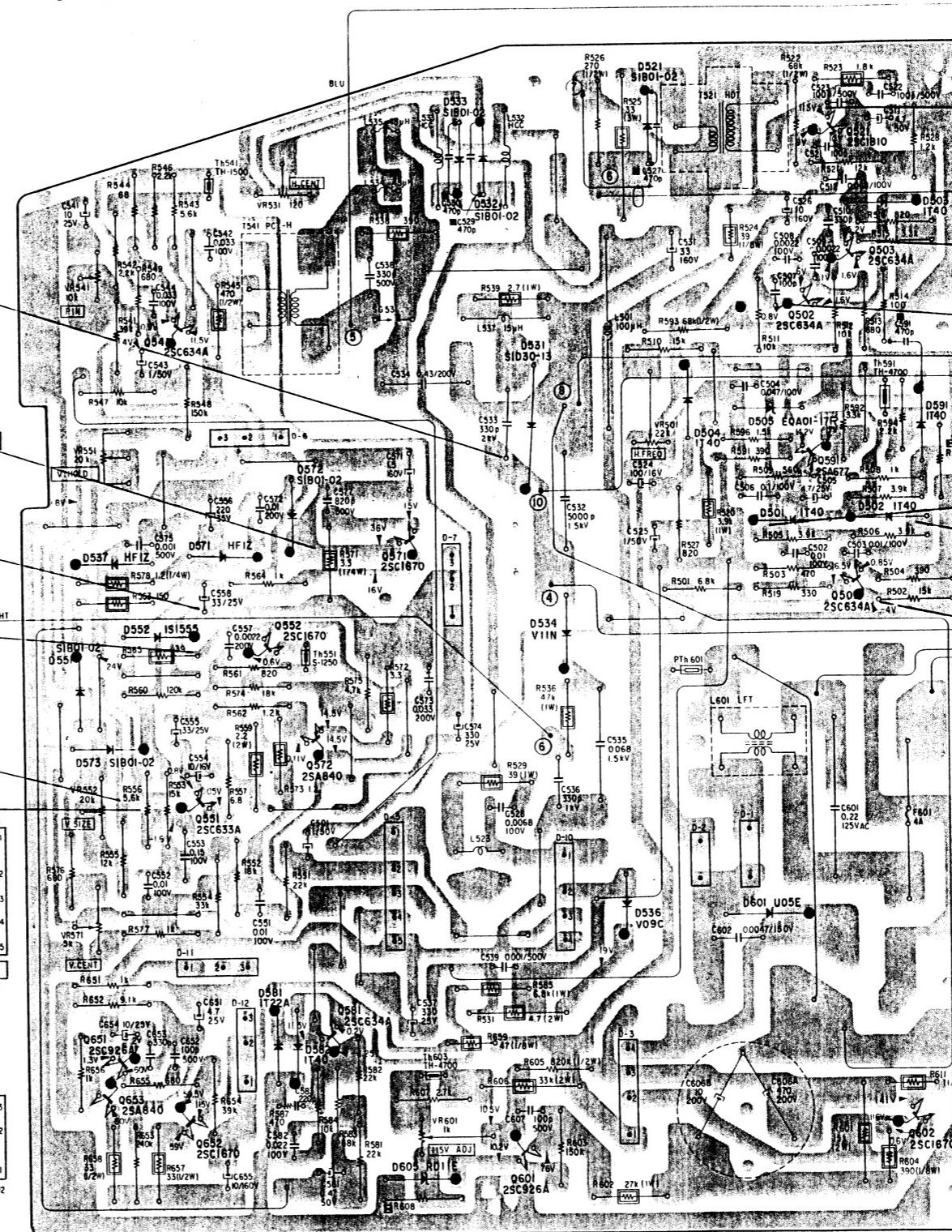
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1T261  
1T22A  
1T40  
1S1555  
RD11E

SID30-13

EQA01-17R  
SIB01-02V09C  
VIIN  
U05EHFIC  
HF1Z

O	D	ADJ
521	521	
533	532	VR531
503		
502	511	VR541
541		
591		
504	505	VR501
531	591	VR551
572	502	
501	571	
552	534	
551		
572	573	VR552
551		
536	601	VR571
581	581	
651	582	
901		
653		
602		
601	605	VR601

The symbol printed on the conductor side of circuit board indicates that complete connection should be especially made.



11

A-1345-086-A

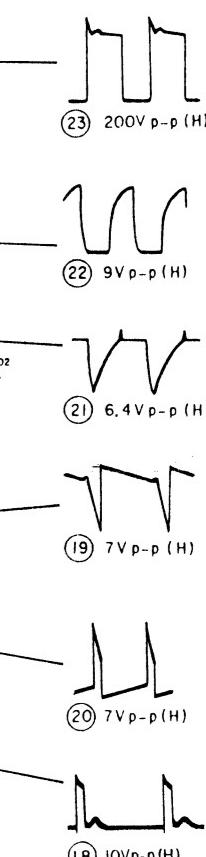
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Sony Corporation

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77K0206-4  
Printed in Japan

D-10



# KV-1746R/1946R

## RM-703

## SERVICE MANUAL

## CORRECTION

Correct the service manual as shown below.

: corrected portion

### 1. CIRCUIT ADJUSTMENTS

A board

Page 16:  R563 ADJUSTMENT (KV-1746R)

Incorrect	Correct
<p>2. Supply the <math>17.9V \pm 0.05V</math> dc to TP85 with the regulated-dc power supply and confirm that the set is normally operated on any of all channels. (The HV hold down circuit does not operate.)</p>	<p>2. Supply the <math>18.1V \pm 0.05V</math> dc to TP85 with the regulated-dc power supply and confirm that the set is normally operated on any of all channels. (The HV hold down circuit does not operate.)</p>

A board

Page 16:  R563 ADJUSTMENT (KV-1946R)

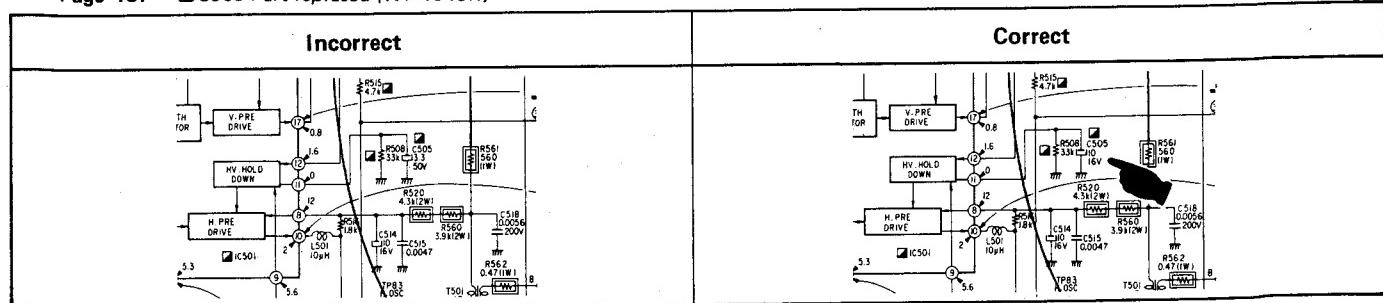
Incorrect	Correct
<p>2. Supply the <math>18.3V \pm 0.1V</math> dc to TP85 with the regulated-dc power supply and confirm that the set is normally operated on any of all channels. (The HV hold down circuit does not operate.)</p>	<p>2. Supply the <math>19.1V \pm 0.05V</math> dc to TP85 with the regulated-dc power supply and confirm that the set is normally operated on any of all channels. (The HV hold down circuit does not operate.)</p>

### 2. SCHEMATIC DIAGRAM

A board

Page 38:  C505 Part replaced (KV-1746R)

Page 46:  C505 Part replaced (KV-1946R)



### 3. ELECTRICAL PARTS LIST

Page 56: ELECTRICAL PARTS LIST (KV-1746R)

Page 66: ELECTRICAL PARTS LIST (KV-1946R)

Incorrect					Correct				
Ref.No	Part No	Description	Remark		Ref.No	Part No	Description	Remark	
C 505	1-123-354-00	ELECT	3.3MF	20%	T501	1-123-316-00	ELECT	10MF	20%

CAPACITORS • MF :  $\mu$ F

9-962-711-91

TV and Consumer Video Group

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MC-Service



**SONY**  
TRINITRON® COLOR TV

81F0450-1  
Printed in Japan

US Model

Chassis No.

KV-1746R : SCC-341A-A

KV-1946R : SCC-342A-A

No. 1

June, 1981

# **SERVICE MANUAL**

# **SUPPLEMENT**

*KV-1746R: Except for Serial No. 500001 to 518100.*

**Subject: Modification of H. OUT circuit.**

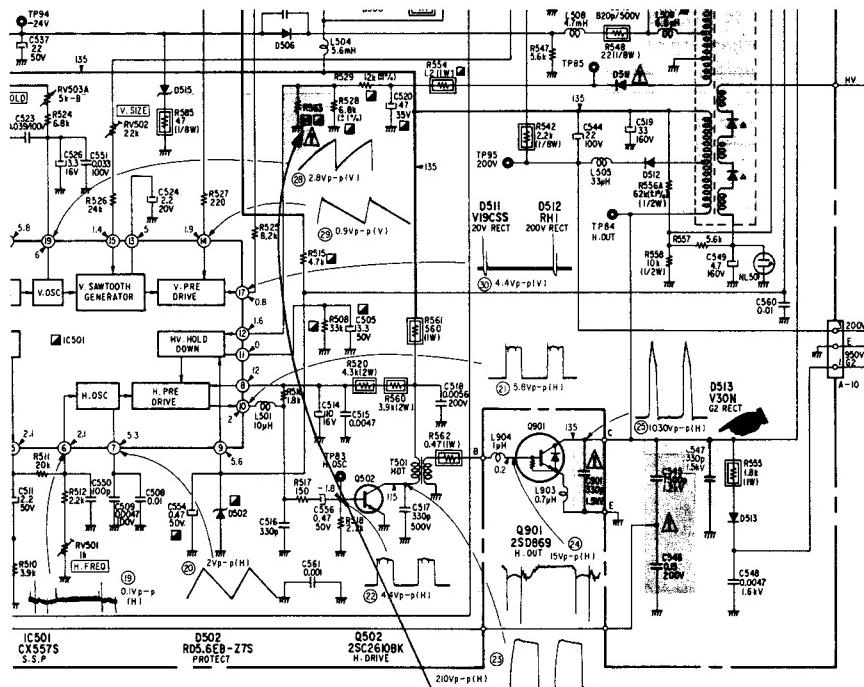
 : changed portions

Page 56: ELECTRICAL PARTS LIST

<u>Ref.No</u>	<u>Part No</u>	<u>Description</u>	<u>Remark</u>
C547	A-1-102-327-00	ELECT	330P. 20% 1.5KV

## **Page 38: SCHEMATIC DIAGRAM**

A Board



# STANDARD PARTS LIST

## ELECTROLYtic CAPACITORS

CAP. ( $\mu\text{F}$ )	RATING → : Use the high voltage rated one.						
	6.3 VOLT.	10 VOLT.	16 VOLT.	25 VOLT.	35 VOLT.	50 VOLT.	63 VOLT.
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47						→	→
1.0						→	→
2.2						→	→
3.3						→	→
4.7				→	→	→	1-123-369-00
10			→	→	→	1-123-356-00	1-123-370-00
22			→	1-123-330-00	→	1-123-357-00	1-123-371-00
33	→	→	1-123-318-00	→	1-123-343-00	→	1-123-372-00
47	→	1-123-306-00	→	1-123-332-00	→	1-123-359-00	1-123-373-00
100	→	1-123-307-00	→	1-123-333-00	1-123-345-00	1-123-360-00	1-123-374-00
220	→	1-123-308-00	1-123-321-00	1-123-334-00	1-123-346-00	1-123-361-00	1-123-375-00
330	→	1-123-309-00	1-123-322-00	1-123-335-00	1-123-347-00	1-123-362-00	1-123-376-00
470	1-123-298-00	1-123-310-00	1-123-323-00	1-123-336-00	1-123-348-00	1-123-363-00	1-123-377-00
1000	1-123-299-00	1-123-311-00	1-123-324-00	1-123-337-00	1-123-349-00	1-123-364-00	1-123-378-00
2200	1-123-300-00	→	1-123-325-00	1-123-338-00	1-123-350-00		
3300	1-123-301-00	1-123-313-00	1-123-326-00	1-123-339-00			
4700	1-123-302-00	1-123-314-00	1-123-327-00				
6800	1-123-303-00	1-123-315-00					
10000	1-123-304-00						

CAP. ( $\mu\text{F}$ )	RATING			
	100 VOLT.	160 VOLT.	250 VOLT.	350 VOLT.
PART No.	PART No.	PART No.	PART No.	PART No.
0.47	1-123-379-00			
1.0	1-123-380-00	1-123-252-00	1-123-003-00	1-121-168-00
2.2	1-123-381-00	1-123-026-00	1-123-027-00	1-123-028-00
3.3	1-123-382-00	1-121-707-00	1-123-004-00	1-123-006-00
4.7	1-123-383-00	1-121-246-00	1-121-759-00	1-123-007-00
10	1-123-384-00	1-121-999-00	1-123-254-00	1-123-008-00
22	1-123-385-00	1-123-253-00	1-123-005-00	1-123-022-00
33	1-123-386-00	1-121-757-00		
47	1-123-387-00	1-121-919-00		
100	1-123-388-00			
220	1-123-389-00			
330	1-123-390-00			
470	1-123-391-00			

## CERAMIC CAPACITORS

CAP. (pF)	RATING						
	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.
PART No.	PART No.						
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00		
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00		
16	1-102-952-00	110	1-102-815-00				
18	1-102-953-00	120	1-102-816-00				
20	1-102-958-00	130	1-101-081-00				

0.001 $\mu\text{F}$  = 1,000pF

## MYLAR CAPACITORS

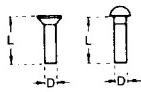
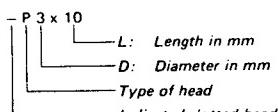
CAP. ( $\mu\text{F}$ )	RATING						
	50 VOLT.	100 VOLT.	200 VOLT.	CAP. ( $\mu\text{F}$ )	50 VOLT.	100 VOLT.	200 VOLT.
PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00
0.0022	1-108-230-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00

### 1/4 WATT CARBON RESISTORS

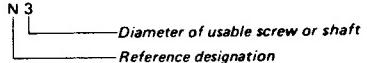
$\Omega$	Part No.										
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-476-00	13k	1-246-500-00	130k	1-246-524-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-477-00	15k	1-246-501-00	150k	1-246-525-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-478-00	16k	1-246-502-00	160k	1-246-526-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-479-00	18k	1-246-503-00	180k	1-246-527-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-480-00	20k	1-246-504-00	200k	1-246-528-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-481-00	22k	1-246-505-00	220k	1-246-529-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-482-00	24k	1-246-506-00	240k	1-246-530-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-483-00	27k	1-246-507-00	270k	1-246-531-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-484-00	30k	1-246-508-00	300k	1-246-532-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-485-00	33k	1-246-509-00	330k	1-246-533-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-486-00	36k	1-246-510-00	360k	1-246-534-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-487-00	39k	1-246-511-00	390k	1-246-535-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00

### HARDWARE NOMENCLATURE

Screw:



Nut, Washer, Retaining ring:



Reference Designation	Shape	Description	Remarks
<b>SCREWS</b>			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
<b>SELF-TAPPING SCREWS</b>			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
<b>SET SCREWS</b>			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
<b>NUT</b>			
N		nut	
<b>WASHERS</b>			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
<b>RETAINING RINGS</b>			
E		retaining ring	
G		grip-type retaining ring	

**Sony Corporation**

**TV and Consumer Video Group**

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